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ORIGINAL COMMUNICATIONS.

PURPURA HÆMORRHAGICA.

Read before the Pennsylvania State Medical Society

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HEMORRHAGIC purpura, the morbus maculosus of Werlhof, is a well-marked, easily-recognized morbid state, of sufficiently frequent occurrence to warrant consideration, and I believe that the cases which I now report will be found to possess features of sufficient interest to repay us for the time devoted to their discussion. Purpura derives its name from the dark color of its lesions in the skin and mucous membranes. It may or may not be hemorrhagic and accompanied by bleeding from mucous tracts, but it would certainly be an error to classify it, as did Willan and Bateman, among the exanthemata. Similar lesions from petechiæ, varying in size, number, and form, we are familiar with in diseases characterized by profound alteration of the blood, the type of which may be seen in malignant typhus, confluent smallpox, black measles, and cerebro-spinal fever. They are sometimes present in cases where the blood suffers from some vice of nutrition, as in scorbutus, and are also classed among the effects of the toxic action of certain drugs. It has been frequently observed that the peculiar eruption, with or without external loss of blood, seems to occur as the direct result of depression of the powers of life. Impaired nutrition, exhaustion following profuse uterine hemorrhages, or exposure to cold may be the immediate or exciting cause. Doubtless, cases occur in which several causes combine. Pathologists are not agreed whether the blood is alone at fault, or the capillary vessels and arterioles are also in a pathological state, so that they yield and rupture more readily than in health.

It seems reasonable to suppose, as suggested by Fagge, that marked alterations in the crasis of the blood may soon be followed by disease of the smaller vessels, and thus both actively participate in the morbid process.

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Excluding from consideration instances in which purpura occurs symptomatically in the progress of some recognized and well-defined disease, there still remain a group of non-febrile cases in which the painless, indelible, slightly-elevated spots or blotches upon the skin and mucous surfaces are the prominent, and apparently the only tangible, evidences of presence of actual disease, except the tendency to oozing of blood from the mucous membranes. Such, for the want of a more distinctive appellation, are called cases of purpura or hemorrhagic purpura. The name is objectionable, since it is based simply upon the most conspicuous clinical characters, but, as a provisional title, will serve our present purpose.

During the past year two cases both of which possess features of interest came under my charge, suffering with hemorrhagic purpura. In neither was there a family history of hæmophilia. In one, the first attack was fatal, the duration of the disease being five days; in the second, the primary attack, though severe, was survived, and was followed by a second and a third attack. Their histories are very briefly as follows:

G., 23 years of age, white, born in Philadelphia, of German parents, with a family history of struma, came to me last July for an opinion as to the advisability of going to Colorado for his health, which he had been recommended to do by a physician under whose care he had placed himself temporarily. The previous year he had been to California for a month or more on a business and prospecting tour. He had gained flesh quite rapidly while away, and when he first returned he weighed one hundred and eighty-three pounds. I had not seen him again until he called upon me last July. He then startled me by his changed appearance. He had lost within a period of less than ten months over sixty pounds in weight. Although he had no cough or expectoration, with the exception of an occasional spasmodic expulsion of air, as if to clear the throat (and of which he seemed unconscious), and although he did not complain of pain or discomfort in the chest, yet I had no difficulty in recognizing it as a case of acute pulmonary phthisis. His shallow and frequent respirations, dyspnoea upon exertion, accelerated pulse, curved and livid finger-nails, enlarged area of liver-dulness, rapid and extreme emaciation, with a temperature under his tongue of 102°, confirmed my first opinion, and induced me to write a

note to his father, to whom I explained the grave character of the disease, and the rapid approach of a fatal termination.

With this in mind, I opposed Colorado, and suggested a more accessible place. Upon my recommendation, he was sent to Kane, McKean County, in this State. For the subsequent notes of this case I am indebted to Dr. Thomas Lancaster, who happened to be staying at the Thomson House, where the patient was sent. He reached Kane about the 1st of last August. He soon gained in weight and strength, could eat and sleep well, and took daily exercise for about two weeks, when he consulted Dr. Lancaster with reference to some petechial spots upon both legs below the knee. They were painless, dark-colored, very small, and slightly elevated above the surrounding surface of skin. Two days later he took a long drive, lasting nearly all day, and possibly he became chilled: when he returned he appeared quite exhausted.

August 17.—Examination of the spots revealed a change in size and color: they had become larger and lighter. The legs were spotted and mottled, like a trout's back, from the ankles to the knees. There was no œdema and no tenderness. One or two spots, small and very dark, were now observed upon the face and front of the chest. There were also three spots, as large as a split pea, dark-colored, and projecting from the surface of the inside of the lips and the dorsum of the tongue.

August 18.—Unable to leave his room. The spots upon the lips and tongue looked like small aneurisms by anastomosis. There was bleeding from the nose after getting to bed, which continued nearly all night. It was finally checked by the use of a compress wet with alum-water.

August 19.—After the nose had stopped bleeding, oozing occurred from the larynx (or pharynx?). He was now ordered oil of turpentine, fifteen minims every three hours; and several drachm-doses of fluid extract of ergot were administered through the day without effect.

August 22.—Began to pass bloody urine last evening, and has lost considerable. There was no hemorrhage from the bowels. The vital forces much depressed, but he was rational, and ate a hearty dinner. The spots were a little lighter in color, becoming livid upon the legs: he said that he felt weak, but otherwise well. During the night he had another profuse hemorrhage from the nose, mouth, and kidneys, and died of asthenia about four o'clock in the morning. No autopsy.

There is one point in the history of this patient which deserves to be mentioned. He had been irregular in eating and in drinking, about two years before this illness

began, and subsequently he took quantities of patent medicines of all kinds for the relief of dyspepsia, from which he suffered. He had had no other sickness that he was aware of during late years.

At the time of going to Kane he was ordered to take—to steady his heart—Niemeyer's pills of quinine, digitalis, and opium, and he was taking these when the purpura first appeared.

The second case was that of Mrs. X., a dressmaker, 32 years of age, born in France. In 1882, acquiring chills and fever at Torredale, Pennsylvania, and not being relieved by ordinary treatment, she went back to France, where she again suffered with it. She did not finally become free from malaria until the spring of 1885, after her return to this country, when she first came to me; and it yielded under the influence of Fowler's solution of arsenic and compound tincture of cinchona. She was, however, subject to irregularity of menstruation, following an abortion two years before. Catamenia at times very profuse.

Her appetite continued good, and there had been no marked change in weight. In February last she was working very hard, and thinks she spat a little blood mixed with saliva from her throat, and it may have come from her pharynx; she had no cough, and no evidence of disease of the lungs. This was just prior to menstruation; she had taken four grains of quinine the night before the blood appeared. The loss of blood continued only for a single day.

March 7.—I was called to see her. She recommenced spitting blood on the 5th; her menses had appeared the day previous, and the flow was profuse. On the same evening, March 4, she took four grains of quinine, and slept well, but was awakened in the morning by the blood, which oozed constantly from her mouth. Upon examination of her mouth, it was noticed that blood was issuing steadily from the gum at the point of attachment with all the teeth, except the upper central incisors. The gums were not swollen nor spongy; the breath had the odor of fresh blood, but otherwise was not malodorous. There were eight or ten large and small, very dark colored, raspberry-like, elevated patches seen upon the inner surface of the lips and cheeks, and one or two upon the tongue. It was at first thought that blood was oozing from these spots, but it was found that this was a mistake: the blood only came from the sockets of the teeth, as before stated. There was no epistaxis and no pulmonary symptoms. Upon the surface of the body were seen the characteristic lesions of purpura. On the external aspect of the left wrist there was a livid spot the size of a silver dollar; similar spots were present on the lower

extremities below the knees and upon the left thigh. A few petechiæ were seen also on the extremities. The lesions in the mouth gave a little pain, but not those upon the body, which were discovered only by accident. The expectorated blood and saliva showed no tendency towards coagulation; in the course of the day it amounted to about forty to fifty ounces. She complained of severe headache; pulse weak, temperature 100°. Some splenic pain, with moderate increase of dulness. During the next five days the bleeding diminished greatly, and then ceased. Menstruation continued four days, rather profusely, and then declined, until it stopped entirely at the end of a week. There had been no hemorrhage from bowels or kidneys, so far as could be ascertained. The spots upon the skin gradually faded; new ones appearing on the day after I saw her, but none since that time.

May 16.—I was again called to see her, when the same clinical picture was presented as during last attack, except that there was no menorrhagia, the menses having appeared and passed through a normal course two weeks before. In the interim of two months she had felt well, but had applied herself very closely to her work. Upon May 15, feeling worn out, and having suffered with headache for nearly a week, she took two pills of quinine (quinine sulphate, gr. ij each) in the middle of the day, and repeated the dose about five o'clock P.M., as she felt chilly. About seven o'clock, two hours after taking the second dose of quinine, her chill having been succeeded by reaction and moist skin, she commenced to spit blood, and the bleeding soon became as profuse as in the former attack. This time the central incisors did not escape.

May 17.—She has been unable to sleep for two nights, because of the constant oozing of blood,—nearly a quart of fluid having been discharged during the night. Two or three raspberry spots were seen on the lips and tongue, and a livid spot over the outer and upper border of the gastrocnemius muscle. On the following (third) day the bleeding finally stopped; she had no headache, but was very weak. Towards the latter part of the flow the fluid formed a very delicate, cherry-colored coagulum. Microscopic examination of this fluid showed an almost entire absence of healthy red corpuscles, but many deformed ones were seen, mixed with what was supposed to be detritus of cells which had yielded their hæmoglobin to the serum.

Not to go into long details as to treatment, I would say that my therapeutic observations upon this case were briefly as follows:

1st. Fluid extract of ergot had no apparent effect upon the bleeding.

2d. Nitrate of iron solution (U.S. Ph.),

given ten drops every hour, for two days, during the first attack, exerted very slight, if any, styptic action.

3d. The application of a four-per-cent. solution of cocaine hydrochlorate to the bleeding surface, as first practised by Dr. William F. Waugh,* of Philadelphia, seemed, after the third trial, to reduce materially the flow of blood. It was applied by means of a small camel's-hair brush, which carried the solution under the border of the gums.

4th. The practice of frequent feeding and a strictly milk diet were made necessary by the condition of the patient. (In cases of hemorrhage I usually order the milk to be boiled with ten or twelve sticks of cinnamon in it. I do not know where I first learned of this expedient, but I can state that I have frequently seen its usefulness, in cases of menorrhagia especially.)

5th. I would, however, call especial attention to the use of the fluid extract of hamamelis Virginica, which, in doses of 3ss to 3j, was well borne by the patient, and which in the last attack evidently was of service in shortening its duration. There was no symptom of rheumatism, and none of the usual rheumatic remedies were used.

One remark I would like to make upon the etiology of this disease, as illustrated by these cases. In each of the three attacks occurring in the last patient there was one constant antecedent: *the bleeding followed the administration of quinine*. In the first case, also, it has not escaped your observation that the patient was taking Niemeyer's pills. It is a remarkable coincidence that in the severe case reported by Dr. Waugh, which I have just referred to, the attack also followed the administration of six grains of quinine.

Referring to the literature of the subject, we find that quinine is named among the drugs which are capable of causing purpura.†

Lewin, in his book on the "Incidental Effects of Drugs" (Philadelphia, 1882), also mentions purpura as one of the occasional results of the toxic effect of quinine.

Vepan (*Gazette Méd. de Strasbourg*, 1865) has observed a petechial form of purpura after the administration of gr. ij-ijj of quinine in a case of neuralgia.

* Philadelphia Medical Times, vol. xv. p. 380.

† See article on Purpura in Christopher Heath's "Dictionary of Surgery," Philadelphia, 1886.

Gauchet also reports similar cases in the *Bulletin de Thérapeutique*, vol. xc. p. 373.

Grissac (*Des Eruptions Quiniques*) recognizes the following varieties of quinine eruptions: (1) purpura, (2) roseola, (3) scarlatiniform erythema, and (4) eczema.

In this connection the following experiment may prove interesting:

Munk (*Archiv für Anatomie u. Physiologie*, 1873, H. 5) relates that when he allowed a current of electricity, produced by ten of Grove's cells, to pass through a part of the human body after the electrodes had been moistened with a solution of sulphate of quinine, the portions of skin acted upon became anæmic, dried, and depressed immediately after the interruption of the current. Then the next hour the same parts became much swollen, so that they projected considerably above the surrounding skin, without having undergone any change in color. The swelling disappeared during the course of several hours, and gave place to a hyperæmia, in which there appeared a large number of extravasations of blood no larger than the head of a pin, which remained after the hyperæmia had subsided. Quinine could still be found in the urine twelve hours after the passage of the current. In these cases, therefore, in consequence of the passage of quinine through the tissues, an erythema and later a purpura-like eruption was produced.

I think that under certain circumstances we must admit that quinine in ordinary medicinal doses may precipitate an attack of purpura in its severest form. It is understood, of course, that this conjunction is of comparatively rare occurrence, otherwise there would be an epidemic of purpura all over the United States as a result of the large daily consumption of quinine.

Have we any light upon the question? Is there any rule governing these exceptional cases that we can discover? We know that quinine is a protoplasm poison, and therefore may, and undoubtedly does, exert its influence upon the capillary vessels, thus obstructing normal diapedesis. It also reduces the vital activity of the white blood-cells, and checks their amœboid movements. But, ordinarily, this does not lead either to extravasations or to hemorrhage. What, then, is the condition of the circulating fluid which furnishes the reverse of the medallion? It has been noticed that the patients have usually been

overworked and exhausted and have complained of chilliness, which may perhaps have been due to spanæmia or poverty of the blood. Without discussing the problem further, let me say that, in connection with the evident degradation of the blood and its feeble coagulating power noticed in the above cases, some recent experiments upon the coagulating principle of the blood are suggestive and may be important. The experiments were reported by Drs. Wooldridge and Lingard in lectures recently delivered before the University of London. Dr. Wooldridge is demonstrator of physiology at Guy's Hospital. He claims that by the use of low temperatures he succeeded in isolating from the blood-serum a substance which, when injected into the circulating system of another animal, produces almost instantaneous general clotting of the blood. It was suggested that the normal coagulability of the blood is due to the presence of this body in a certain proportion; that it may be increased or decreased by diet as well as by disease. It was—and this is to be noted in connection with our cases—very much reduced by starvation, and it could be increased by a diet containing much fat.* The value, therefore, of a diet of milk or cream, liberally administered, may be not inferior to that of drugs in the treatment of diseases attended by reduction in the coagulating principle of the blood, which apparently is so important a factor in cases of purpura hæmorrhagica. Diseases are often like the dissected puzzles of children, made up of several co-operating causes varying in importance and in their nature, but all of which are required to complete the clinical picture. In citing quinine, therefore, as a factor in the causation of certain cases of purpura, I do so without prejudice against its use in appropriate conditions, and without ignoring the fact that there may also be present an abnormal condition of the blood, concerning the precise nature of which we are still in the dark.

Upon the subject of etiology I observe, in conclusion, that Dr. Wilkes† had a case under his care in which Mr. Watson Cheyne found strings of micrococci in the tissues. In a case of Dr. Russell's he had previously found bacteria.

* See *ante*, London Letter, June 14, 1886.

† Fagge's "Practice of Medicine," Am. ed., vol. ii. p. 624.

NOTES ON SOME FORGOTTEN OR MUCH-NEGLECTED REMEDIES AND THERAPEUTIC MEASURES.

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THOSE who have lived through many years of the history of medicine and have observed the progress and oscillations of therapeutic ideas and practices have become familiar with the tendency of medical men to run to extremes in pursuing some new measure or in making a hobby of some new remedy, until, finding that the remedy or measure would not do all that unreasoning enthusiasm had promised, they have come to neglect or set it aside for something new,—something having similar therapeutic results, but promising to act more in accordance with the old saw, "*Tuto, cito et jucunde*."

Those who have been observant for the last thirty or forty years of the changes alluded to have seen many remedies, therapeutical ideas, and pathological theories rise higher than they ever ought to have risen, and, on the other hand, have seen them fall lower than they deserved to fall. The tendency has been, and still is, to an extreme sweep of the pendulum.

Those who practised our art forty or forty-five years ago will remember the beginning of the decline of the great and overshadowing therapeutic agent, *bloodletting*. Previous to that period no acute inflammation or congestion escaped the lancet or scarificator or leech. If a young practitioner was so unfortunate as to lose a case of pneumonia or peritonitis in which he had not bled his patient profusely and repeatedly, he was in danger of being accused by his medical fathers and nursing mothers of allowing his patient to die. The young doctor was set down as timid and inefficient: he was not to be trusted. The wise and designing Sangrados could "sit down on him" in cool assurance that they would be sustained by the laity; for, notwithstanding the rising prejudice against the excessive use of the lancet and other powerful agents, the rank and file of the people still blindly worshipped the "bold practitioner," while the cautious young physician was often looked upon as a skulker.

As time wore on, however, a better system of clinical study began to prevail; empiricism gave place to a more thought-

ful method of observation, which resulted first in the diminution of the amount of blood lost by patients, and finally in the number of cases in which it was thought that bloodletting was required in any measure. The laity also began to have opinions. Slowly the fashion began to gain ground of rejecting the lancet except in extreme cases, until at last venesection, instead of being the rule, became between 1850 and 1860 the rare exception. This change, however, did not in that period become alike complete in all localities.

In the period between 1840 and 1850 two forms of empiricism which had existed for several years began to rear their heads and even to assert themselves. I refer to the Botanic or Thomsonian "system," so called, but which now has acquired or assumed the sounding name of "Eclectic," in which all sorts of good things are accepted and all sorts of bad things rejected,—in which fierce lobelia, emetics, and huge draughts of bitter or aromatic infusions and decoctions figured as the health-giving agents. The other and extreme and more attractive form of charlatanism was distinguished by its therapeutic dictum of *similia similibus*, etc., and its infinitesimal dosage. These agencies, with the waning faith of both doctors and people in the former rough plans of medication, made unfashionable the former leading remedies and therapeutic measures,—bloodletting, mercurials, antimony, and counter-irritants. Cathartics never lost their hold on the people,—as witness the triumphs of Brandreth and Ayer.

The unpopularity of the lancet in pneumonia—croupous pneumonia—arose from its outrageous abuse in former times. Its use and usefulness as an adjuvant of other antiphlogistic means in the early stages of this disease have been forgotten or overlooked by those who were in practice thirty-five years ago. If they will recall the prompt relief which they witnessed from an effective but judicious bloodletting, supplemented by the proper administration of antimony, they will wonder how they ever came to wholly abandon the treatment. The substitution of *veratrum viride* for antimony, much as it is derided on theoretical grounds (after the overburdened heart has been relieved by the abstraction of a portion of the circulating

fluid), is a decided advance in the therapeutics of pneumonia. But, like the lancet and tartarized antimony, it is a powerful remedy and is to be used with judgment, and when so used will help to limit the inflamed area as well as its duration, notwithstanding the fact that pneumonia in a certain but very limited proportion of cases suddenly subsides by crisis on the seventh or eighth day. That we do cut short—or, as the French say, *jugulate*—pneumonia in a fair proportion of cases under the plan above indicated is a clinical fact too well known to be doubted, especially by those whose reaction from the extreme practice of other days was only moderate.

In a discussion which arose in the American Medical Association a few years ago on venesection in pneumonia, a wide range of views was held. A Cincinnati professor indulged in this inconsequential talk: "What advantage is there," said he, "in checking the force and frequency of the heart, when this increase in force and frequency is only compensatory, and is to be favored rather than checked? Pneumonia is due to a poison entering the blood and affecting the whole body, and no amount of bloodletting could let it out any more than we can drain out the impurities of a stream with a bucket." I say that this is inconclusive talk, and is not worthy of an attempt at refutation. In the same discussion such men as Dr. N. S. Davis, Dr. William Brodie, Dr. A. C. Post, and Dr. S. D. Gross, of Philadelphia, spoke in favor of bloodletting, and regarded it as an adjuvant or auxiliary of great value. Dr. Post, in allusion to the lower percentage of deaths from pneumonia treated by the modern methods, very justly remarked that no reliance could be placed on statistics, as they were chiefly drawn from a class of patients found in hospitals, who had been badly clothed, badly housed, and badly fed all their lives, and such statistics were not reliable guides. And a little reflection will show any one that in such a class of patients the modern expectant plan of management of pneumonia would show a better percentage of recoveries than the spoliative treatment of former times. But with the judicious use of the lancet among the healthy denizens of country villages and a farming population, I venture the opinion that the favorable percentage of recoveries would be recorded on the other side. If a name is

treated instead of a condition, we must expect disappointment in the results.

Among modern writers, Dr. Henry Hartshorne, of Philadelphia, took a most sensible view of this whole question. He gave as reasons for the fact that bloodletting has more opponents than defenders now than at any earlier period in medical history: 1st, the reaction from the previously-existing abuse of the remedy; 2d, a change in the average human constitution (in large cities especially) occurring under the artificial habits of civilized life; 3d, false construction and misapplication of recent science (as in the case of the Cincinnati professor); 4th, leadership and fashion. And he might have added a fear on the part of the practitioner of the prejudices of the community and of becoming unpopular if he should bleed and blister, notwithstanding the soundness of his convictions as to the value or necessity of these measures.

By the timely and suitable letting of blood we lessen, for a time at least, the fulness of the blood-vessels, the number of the red corpuscles, the force of the heart's impulse and of the arterial impulse, and the excitement of the nerve-centres. "By all these influences," Dr. Hartshorne remarks, "we diminish the vascular excitement connected with an inflammation, and thus lessen the amount of the resultant exudation, and render its history more normal and its changes less degenerative and destructive."

I need only refer again to the comparative percentage of deaths under the old plan of indiscriminate bleeding in the treatment of inflammations, especially of pneumonia, as compared even with the expectant plan, to show you that, if we study the figures alone and not the facts which generate or make the figures, we may still harbor the delusion that "figures don't lie;" but, if we honestly compare facts and figures, we shall see how unreliable are some statistical tables, and how woefully figures *do* sometimes lie.

I have alluded to tartarized antimony as one of the agents resorted to in the treatment of inflammations, and especially pneumonia. Before the introduction of veratrum viride, which began to be more especially noticed by Dr. Norwood, of South Carolina, about thirty-five years ago, although mentioned by Bigelow, Tully, and others twenty years earlier, antimony was the sedative generally relied

on; but, after a timid probation of a few years, veratrum viride acquired very generally the confidence of the profession, and tartarized antimony was forgotten. That antimony was nearly as often abused as the lancet is a fact recognized by those familiar with its literature or who thirty or forty years ago were obliged to rely on it as a sedative,—the synergist or adjuvant of bloodletting. But the abuse of such a potent and reliable antiphlogistic was not a sound reason for its neglect or rejection. It is true that it is still used in combination and as an emetic in croup; but its valuable properties in the various forms of pulmonary inflammation are not often recognized, or are forgotten. In some conditions it cannot take the place of veratrum, and yet it is spoken of by some recent writers as "the most powerful antiphlogistic (arterial sedative) medicine." This is high praise, but a little excessive; for, by all odds, it is greatly excelled by veratrum viride as a cardiac sedative.

It seems not to be very generally known that tartar emetic is one of our most efficient agents in promoting parturition. When the pulse is tense, the os rigid, the skin dry and hot, the advance of the head slow, I have seen, by the use of small doses of antimony, the most prompt and happy change for the better. The pulse softens, the skin becomes moist, the rigid os relaxes, the vagina becomes bathed in a plentiful supply of mucus, and the uterine contractions hasten on to a speedy termination of the labor.

It is not a substitute for ergot, but it has properties which make it much oftener available as a means of hastening labor to a happy termination. If the dose can be so graduated as to produce its effect as a parturient just short of nausea, and especially short of vomiting, the effect seems to be better than where vomiting occurs.

In this connection I may allude to the very general neglect or abandonment of emetics, except as simple evacuants of the stomach and air-passages. Thirty or forty years ago, one class of irregular practitioners were notorious for their frequent and empirical use of lobelia emetics, which they generally administered in person, in order, perhaps, to be in readiness to counteract the drastic violence of this agent should mischief threaten or occur, as it frequently did. This abuse of emetics, as well as the increasing prejudice against

strikingly potent measures of all sorts, probably had its influence in inducing physicians to restrict emetics to their use as evacuants simply. But emetics for the purpose of evacuating the bile-ducts and stimulating a torpid liver to a more healthy performance of its functions, and at the same time exerting an "alterative" effect on the glands of the stomach and intestines, are not as often resorted to as formerly. They often relieve in a most evident manner that condition which, for want of a better name (and we scarcely need a better one), we call *biliousness*. But the physician who will, even "semi-occasionally," resort to emetics with all proper precautions is in danger of being branded a "fogey." Yet, with the proper restrictions and precautions, we know that they are powerful for good. Shall we be brave enough to use them?

Fashion in medicine is shown in a marked degree in the change of professional opinion, or rather of practice, in the use of blisters in chest-affections. Rubefacients and poultices are relied on when active vesication should be resorted to, especially if there is pleuritic pain indicating a simple pleurisy or one complicating pneumonia. Of course, the other depleting and sedative measures should accompany or precede the blister. It is a powerful adjuvant to other antiphlogistic measures, even when resorted to early in many cases of pneumonic inflammation, and, as I intimated before, where pleuritis is an early and marked complication. I am fully aware that this is not the doctrine or the practice of the profession at the present time, and that I shall be criticised for holding this view. If rubefacients will contribute to the reduction of pain, vesicants will more surely reduce the pleuritic inflammation, and thus help to arrest and limit the amount of pulmonic engorgement, and not add to it, as we are taught to believe. One distinguished writer on the practice of medicine objects to the early use of blisters in pneumonia, in part because it interferes with the physical exploration of the chest, rendering it difficult to follow the progress of the exudation,—as though the object of the blister was not, with the other remedial measures, to help to arrest and limit that exudation.

In pleuritis I am positive that we withhold one of the most potent measures for

its arrest and reduction if we do not at once resort to liberal vesication.

Even in the progress of tubercular phthisis I believe that we may protract the lives of some patients and add to their comfort by attacking the local pleurisies that occur from time to time in the progress of the case by small blisters, thus arresting the inflammatory condition beneath and preventing the early softening and breaking down of tubercular deposits at the seat of pain. I am sure that in several instances I have thus postponed the inevitable, and that without debilitating the patient.

I hope that in all that I have said (and much more in the same line might with profit be said) no one will infer that I do not appreciate the many valuable recent additions to our materia medica and to our therapeutic measures. My object has been rather to call attention to the partly-forgotten remedies and measures which are still worthy of our notice and regard, and also to call attention to the tendency to push new remedies to extremes, and then, if they fail to accomplish all that they at first promised, to abandon them, so to speak, as fossils of a former art buried deeply under the succeeding accumulations, which must also await their turn for historic extinction unless a better medical philosophy shall assert itself. Hold fast that which is good.

I am aware that the tendency of advanced life is to conservatism; but then there need be no bigotry if the individual has continued to cultivate his art and its literature during his accumulation of years. He will, however, be better able to point out that which is of permanent value in former views and practices, but which in the rush of new discoveries and inventions is liable to be forgotten or neglected.

REPORT ON TOXICOLOGY AND STATE MEDICINE.

BY GEORGE H. ROHÉ, M.D.

I.—TOXICOLOGY.

LEUCOMAINES AND PTOMAINES, AND THEIR RELATIONS TO DISEASE.

IN the Paris correspondence in this journal for April 3 is given a very succinct account of the recent discussion before the Academy of Medicine *in re* the discoveries

of Professor Gautier. Referring readers to that article (p. 502), and to Dr. Greene's remarks on Dr. V. C. Vaughan's important discovery of a ptomaine in poisonous cheese (p. 781), attention is here directed to more recent investigations upon the last-mentioned substance.

A little over a year ago Professor V. C. Vaughan, of the University of Michigan, discovered a poisonous ptomaine in cheese which had produced alarming symptoms in persons who had eaten of it. This poisonous principle, isolated by a complicated chemical process, was found to produce symptoms similar to those produced by the poisonous cheese itself. The most prominent of these symptoms were dryness and constriction of the fauces, nausea, retching, vomiting, and purging, and in some cases grave nervous depression. The vomited matter was frothy, and the stools were watery in character.

During last winter and spring, Dr. Vaughan, in continuing his researches, succeeded in isolating a similar poisonous ptomaine from pure milk which had been kept in clean, glass-stoppered bottles for three or more months.

On the 9th of last June eighteen persons were poisoned by eating vanilla ice-cream at a picnic in Michigan. Some of the cream, together with a sample of the flavoring-extract, was forwarded to Dr. Vaughan for analysis. After proving the innocuousness of the flavoring-extract upon himself and his assistant (the latter took two teaspoonfuls of the extract without producing any effect), the cream was tested for poison, and the same ptomaine found which had previously been isolated from poisonous cheese and the milk above mentioned. Experiments upon animals (cats) produced the same symptoms as the ptomaine from poisonous cheese. Dr. Vaughan has therefore concluded that the poisonous principles found in the cheese, milk, and ice-cream are identical. He has named this ptomaine *tyrotoxin*.

Post-mortem examination of the poisoned animals showed entire absence of any trace of inflammation in the intestinal canal.

The physician, Dr. R. C. Moffitt, who attended most of the people poisoned by the cream, and who was himself one of the unfortunate sufferers, describes the symptoms as follows: "About two hours after eating the cream every one was taken with

severe vomiting, and after from one to six hours later with purging. The vomit was of a soapy character, and the stools watery and frothy. There was some griping of the stomach and abdomen, with severe occipital headache, excruciating backache, and 'bone' pains all over, especially marked in the extremities. The vomiting lasted from two to three hours, then gradually subsided, and everybody felt stretchy and yawned in spite of all resistance. The throats of all were oedematous. One or two were stupefied; the others were cold and experienced some muscular spasms. A numb feeling, with dizziness and momentary loss of consciousness, was complained of by some. Temperature was normal, and pulse from 90 to 120; tongue dry and chapped. All were thirsty after the vomiting subsided, and called for cold water, which was allowed in small quantities, with no bad results. . . . All are affected with an irresistible desire to sleep which can scarcely be overcome."

Dr. Vaughan is of the opinion that the production of the ptomaine is due directly or indirectly to the growth of some micro-organism. The fact that the ptomaine was only found when there were evidences of the presence of butyric acid seems to point to some connection between the poison and the butyric fermentation.

Dr. Vaughan varied his experiments by adding small portions of the poisonous cream to fresh custard, and produced identically the same symptoms upon himself as those so graphically related by Dr. Moffitt, after taking only one tablespoonful. The effects upon the throat and mouth resembled those from a toxic dose of atropine. While there was nothing peculiar in the taste of the custard when swallowed, the matter vomited had a sickening odor and taste, recognized by Dr. Vaughan as that of the isolated poison. This would intensify the nausea.

Dr. Vaughan draws pointed attention to the similarity between the symptoms of tyrotoxon poisoning and cholera infantum. He says, "The disease occurs at a time when decomposition of milk takes place most readily; it occurs at places where absolutely fresh milk often cannot be obtained; it is most prevalent among classes of people whose surroundings are most favorable to fermentative changes; it is most certainly fatal at an age when there is the greatest dependence upon milk

as a food, and when, on account of the rapid development of the intestinal follicles, there is the greatest susceptibility to the action of an irritant poison. . . . A little dried milk formed along the seam of a tin pail, or a rubber nipple, tube, or nursing-bottle not thoroughly cleansed, may be the means of generating in a large quantity of milk enough of the poison to render it highly harmful to children. . . . If this causal relation does exist between tyrotoxon and cholera infantum, a knowledge of it will aid us not only in the preventive but in the curative treatment of the disease. The first thing to do in the treatment of the disease is to absolutely prohibit the further administration of milk, either good or bad, because the fermentation going on in the intestine would simply be fed by the giving of more milk, even if that milk be of unquestionable purity."

The successful use of mild antacids (chalk-mixture), disinfectants, opium, and stimulants, which all enter into the treatment of the disease as practised by the majority of practitioners, would be entirely consistent with the theory of its causation by tyrotoxon.

CHRONIC TEA-POISONING.

Dr. William N. Bullard (*Boston Medical and Surgical Journal*, March, 1886) has made an elaborate clinical research on the effects of the habitual use of an excessive quantity of tea. His observations were made upon one hundred and sixty-three cases of tea-drinkers, and he classifies the symptoms of chronic tea-intoxication as follows. Loss of appetite was present in sixty-one per cent. of the cases, dyspepsia and epigastric pain in fifty-two per cent., palpitation of the heart in forty-nine per cent., constipation in forty-seven per cent., nervousness in forty-two per cent., headache in thirty per cent., pain in the left side in twenty-one per cent., nausea in twenty per cent., and vomiting in seventeen per cent. While of course there is nothing characteristic of tea-poisoning in any one of these symptoms, the combination, especially the predominance of the nervous group, assists in the diagnosis. The digestive disturbances are usually the beginning symptoms showing the toxic action of the tea; the nervous symptoms appear next; and in many cases a diagnosis is

readily made from the mere appearance of the patient.

The average quantity of tea taken by the individuals who suffered from the toxic effects of the beverage was four and eight-tenths cups per day. It was found, however, that anæmic persons suffered from smaller doses and to a more intense degree than those who are robust. Sedentary persons also suffered more severely than those leading an active life.

A case of acute tea poisoning, with symptoms resembling delirium tremens, is related by Dr. Slayter, of Halifax (*Lancet*, April 24, 1886).

The patient stated that at the age of seventeen she went to work in a factory in one of the New England towns, where she contracted the habit of chewing tea. She had never been addicted to the use of alcohol. The symptoms of the attack were as follows. She complained of sleeplessness, nervousness, and repeated twitchings of the muscles of the face and extremities, which would continue for several minutes at a time. The girl's mistress stated that she had been acting strangely for several days; she was wandering in her mind at times, and imagined people and evil spirits were about her seeking to do her harm; she had not slept for several nights, and on one or two occasions had wandered about the house. Pulse 96 and small; tongue dry and brown; eyes suffused; irregular heart-action; sensation of weight at præcordia; sallow complexion. The symptoms were relieved by a dose of bromide of potassium and chloral.

Three days later Dr. Slayter was again called to the patient, who had been found walking about at night near the docks and when discovered tried to jump overboard. When taken home her pulse was 110, dry and brown tongue, suffused eyes, no increased temperature, violent delirium, and tremor of hands and arms. She had complained of pain in the abdomen, and an examination disclosed a smooth, hard tumor in the right iliac region. A cathartic brought away a mass of hardened feces, followed by a large quantity of thickish, tarry-looking excreta, which seemed to be made up of tea-leaves in different stages of maceration. Bromide of potassium and chloral, followed by tonics and good food, soon restored the patient to health.

POISONING BY BELLADONNA.

Tanner (*British Medical Journal*, March

27, 1886) reports a case of poisoning from swallowing belladonna liniment (quantity not given). When brought to the hospital, about an hour afterwards, the patient's face was flushed, tongue dry, and gait unsteady; pupils partly dilated; breathing shallow, regular, twenty per minute; pulse 98. Vomiting was induced by sulphate of zinc, but without producing improvement; the stomach was also siphoned out.

As the patient became very drowsy, faradism was applied, and the face, chest, and abdomen slapped with a wet towel; the temperature was taken, and found to be 105.6°; pulse 120.

Pilocarpine hypodermically promptly produced profuse perspiration, followed by temporary improvement in the patient's condition. The temperature continued rising, and reached 108.6° in the axilla just before death, which occurred six hours after the poison was swallowed.

POISONING BY CAMPHOR.

A case of poisoning by camphor is reported in the *Indian Medical Gazette* (*La Thérapeutique Contemp.*, May 28, 1886). A machinist having overstayed his leave was advised by a friend to make himself sick in order to have an excuse for his absence. He swallowed two pieces of camphor of about the size of a nutmeg. He soon experienced a sensation of extreme heat in the stomach, followed by vertigo, dizziness, and general malaise. Afterwards there was great agitation, injection of the conjunctivæ, and trembling of the lips. On attempting to walk he fell to the ground, and about an hour after the poison was taken he had a convulsive attack. The spasms, which were at first tonic, became clonic. He frothed at the mouth, the eyeballs were rolled upward, the lips were separated, and the face pale and bluish. After an hour there was a second attack. Between the two attacks the patient complained of an intense sensation of burning in the œsophagus and stomach, and an ardent heat throughout his whole body, with a sensation of general discomfort and complete impossibility of controlling his muscular movements. He vomited several times, but neither micturated nor defecated. The skin did not present any sensible alteration of temperature. Strong coffee and small doses of belladonna repeated every half-hour produced amelioration of the symptoms in about two hours, but a

sensation of discomfort and feebleness and a tendency to sleep persisted for some time. Probably the vomiting relieved the patient of the greater portion of the poison.

ARE COPPER SALTS POISONOUS?

Dr. Du Moulin, Professor of Toxicology in the University of Ghent, opened an interesting discussion in the Academy of Medicine of Belgium by the question, "Are the salts of copper poisonous?" He related a number of experiments made upon animals to determine the question. He had given rabbits and dogs doses of a drachm to a drachm and a half (four to six grammes) of sulphate of copper without producing a single case of grave poisoning. The subacetate administered to dogs produced at first vomiting, but could then be given daily without producing vomiting for periods varying from six weeks to a year.

Similar negative results were obtained with carbonate, oxide, and oleo-palmitate of copper.

Dr. Du Moulin had also given copper salts medicinally to human beings. As much as half an ounce (seventeen grammes) per day had been given without producing discomfort. To scrofulous children an average of thirty-seven and a half grains (two and a half grammes) (per day?) had been administered.

The experimental and therapeutic results obtained by Dr. Du Moulin justified the assertion that the salts of copper are not poisonous. He also formulates the following conclusions:

"It is not demonstrated that large doses of copper compounds mixed with food have ever produced death.

"Except possibly in case of suicide, acute poisoning with copper compounds is not conceivable, on account of their horrible taste and prompt emetic action.

"The quantity of copper necessary to give a green color to legumes (canned peas and beans) is absolutely innocent. There are no facts more solidly established in medicine than their perfect innocuousness.

"All laws which prohibit the employment of vessels or salts of copper in the preparation of preserves or preserved provisions should be abolished."

Naturally, such radical views provoked considerable opposition, and among the opponents of the conclusions above quoted

were Drs. Belval, Depaire, Lefebvre, Crocq, and Vleminckx. But none of them were able to offer anything other than opinions, either of their own or of others, upon the question. The experiments of Dr. Du Moulin, unless errors of observation have crept in, seem to confirm the position he has assumed. The experiments of Galippe have also shown that the fears of poisoning from food cooked in clean copper vessels are groundless. They would also indicate that no fears of poisoning need be entertained from eating canned peas and beans or pickles colored with copper, inasmuch as the quantity of the cupric compound that can be employed without destroying the palatability of the articles is too insignificant to produce any symptoms whatever.

This view is also supported by such high scientific authorities as Pasteur, Brouardel, and De Pietra Santa.

POISONING BY CHLORATE OF POTASH.

Professor von Maschka (*Wiener Med. Presse*, No. 15, 1886) reports the case of a man who had taken four drachms of chlorate of potash, dissolved in water, in the course of six hours. The symptoms were pain in the abdomen, diarrhoea, perspiration, weakness, great thirst, and tonic contractions of the upper extremities. The man died unconscious eleven hours after taking the first dose of the drug.

The medicine had been prescribed as a gargle by the physician, whose directions it appears, however, were not explicit enough, and the patient took it internally, with the result above stated.

The post-mortem appearances were a grayish discoloration of the integument, and a dirty-grayish color of all the tissues, including the bones. Professor von Maschka calls attention to this discoloration as characteristic of chlorate-of-potash poisoning.

CARBOLIC-ACID POISONING.

Dr. A. Caillé (*New Yorker Medicinische Presse*, March, 1886) reports five cases of acute carbolic-acid poisoning. The cases were:

A child of $2\frac{1}{2}$ years, who had taken nearly half an ounce of concentrated carbolic acid; died, seven hours after, with symptoms of pulmonary oedema.

Child of 3 years; six drachms of concentrated acid; death.

Woman, aged 30; tablespoonful of concentrated acid; recovery.

Man; tablespoonful of concentrated acid; recovery.

Man, aged 35; tablespoonful of concentrated acid; death almost instantaneously.

The treatment, except in the last case, was chalk-mixture, milk, olive oil, siphonage of the stomach, and apomorphine hypodermically to produce emesis. Emetics *per orem* failed to produce vomiting, but the apomorphine was promptly effectual. In the cases which recovered, no stricture of the oesophagus remained.

Dr. Caillé also cites seven cases from the literature, all of which recovered. The amounts varied from a half-teaspoonful to four ounces of strong acid.

The principal symptoms of carbolic-acid poisoning are coma and anæsthesia, cold perspiration, muscular spasms; rarely vomiting; white patches in the mouth; urine grayish green, sometimes containing albumen; subnormal temperature.

Apomorphine subcutaneously and solutions of sulphate of soda and chalk-mixture internally are recommended as antidotes.

If the patient is comatose, siphonage of the stomach should also be employed. The after-treatment is that of acute gastritis.

In New York City thirty-nine deaths from the accidental swallowing of the drug, and eight deaths where the acid was taken with suicidal intent, have been recorded in the last ten years.

DRINKING-WATER AS A SOURCE OF LEAD-POISONING.

According to an interesting report by Dr. Sinclair White (*Lancet*, March, 1886), the city of Sheffield, England, is supplied with drinking-water from two distinct sources, with separate systems of distribution. A number of cases of lead-poisoning having occurred last year among persons not engaged in any occupation in which lead is used, suspicion attached to the water-supply. It was found upon examination that the supply in some parts of the city contained lead, while in other parts it was free from the poison. Further investigation showed that the water from one source of supply was impregnated with free acid, probably derived in its passage through peat and rock containing iron pyrites. This water contained lead from

the supply-pipe, while the water from the other source of supply, which was not acid in reaction, did not contain lead in appreciable quantities. It was also found that the water passing through new lead pipe was more strongly impregnated with lead than that passing through old pipe. The greater length of time the water had stood in the pipes also influenced the proportion of lead present. It was found that carbon and spongy-iron filters removed all traces of lead from the water.

CURIOUS SOURCE OF LEAD-POISONING.

A case is recorded in a German medical journal in which an infant was poisoned by the lead contained in a cosmetic on the face of the nurse. The child was five weeks old, and was constantly crying and suffering with colic. Its skin was of a dull bluish tint. The nurse had long been in the habit of using a cosmetic which contained a large proportion of lead. It is stated that upon removal of the cause and appropriate treatment a cure was effected in a few days.

(To be continued.)

ERGOT IN LABOR.

BY J. W. MACFARLANE, M.D.,

Physician to the Episcopal Home, Pittsburg, Pennsylvania.

WE notice in a number of journals of late that ergot is given a prominent place in the management of labor, some recommending it in the second stage, whilst others believe it to be indispensable to the proper management of the third. This journal of September 4 contains an article by Dr. Reichard endorsing it unequivocally in the third stage.

That ergot is a remedial agent of great virtue there is no question; that it should be given in every case of labor seems not only irrational, but harmful.

Labor is a physiological process, and where nature is capable of performing its functions properly it seems meddlesome, to say the least, for the *accoucheur* to give a dose of ergot when the after-birth is expelled and the uterus firmly contracted, under the impression that it will ward off septic trouble and what not.

It is questionable whether ergot should be given in the second stage of labor. One is probably debating whether to apply the forceps or not, and, to get out of the

dilemma, or to be doing something, gives ergot. When I was a resident physician, hour-glass contractions of the uterus and retained placenta were not uncommon things under the use of ergot, and the consequent manipulation to remove the after-birth (which several times necessitated the introduction of the hand) left the patients nervous, exhausted, and liable to hemorrhage.

When there is any difficulty in the third stage of labor, we use the Credé and Cazeaux methods combined. If there is a disposition for the uterus to relax after the removal of the after-birth, the patient is placed upon her back, and the fundus of the uterus is grasped with one hand, whilst two fingers of the other hand are introduced into the vagina. Under these circumstances the neck of the uterus is generally filled with a large clot. A little manipulation with the external hand and fingers within the vagina brings on firm contractions of the uterus, and the clots are forced out into the palmar surface of the hand and thence into the bed.

In cases of post-partum hemorrhage we empty the cavity of the uterus that we may secure perfect contraction. Why not invite a relaxed uterus to contraction in the same manner, when we have the means so ready at our command?

We have never seen the above-named procedure fail to procure firm contraction, though we have, in certain cases where the patients were feeble, followed it up with ergot to guard against any possible danger.

Lying-in women generally get along without a bad symptom. Why make them sick by the use of ergot?

3617 BUTLER STREET, PITTSBURG.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF COLLEGE OF PHYSICIANS AND SURGEONS, BALTIMORE.

CLINICAL SERVICE OF OSCAR J. COSKERY, M.D.,

Professor of Surgery, College of Physicians and Surgeons, Baltimore, Maryland.

A FOREIGN BODY (JACK-STONE) IN THE AIR-PASSAGES FOR TWENTY-THREE DAYS.

SARAH A. W., aged 4 years and 8 months, while playing with an iron "jack-stone," put it in her mouth, and soon after was found to be suffering with

difficulty in breathing. The mother, recognizing the probable cause, put her finger into the child's throat and thought she felt the foreign body, but was unable to extract it. A physician in the neighborhood saw the child within half an hour after the accident occurred, and, while the child was under chloroform, attempted to remove the "jack" with such instruments as he had at hand. Being unsuccessful, the child was sent to me on the next day, August 3, 1886.

Owing to the absence of symptoms peculiar to foreign bodies in the larynx or trachea, the statements of the mother, and the size of the "jack," it was thought by my colleagues who were present, as well as by myself, that the gullet was the site of lodgment. Under chloroform, a large flexible copper probe was with some difficulty passed into the stomach. The foreign body was not detected, and was supposed to have passed into the stomach.

Further proceedings were not thought justifiable, and the child was allowed to come from under the anæsthetic, which she had taken badly. The breath-sounds were normal, and there was no stridor. Semi-solid food was ordered, but the child could not swallow without pain. This was referred to the efforts that had been made to extract the "stone."

On the following day the child was seemingly so much improved that she was sent home, the mother being instructed to watch the stools carefully, and to return at once if any symptoms developed. This she did one week afterwards, saying that the child still could not swallow without pain. Bromide of potassium was ordered in two-grain doses every four hours, and the child directed to be brought back in two days if not decidedly better. I was still inclined to the opinion that the foreign body was somewhere in the alimentary canal.

Circumstances prevented the mother from again bringing the child until August 24, when she gave the following account. Up to the 21st the child's breathing had changed very little, but the difficulty in swallowing had continued. On that day it was noticed that every time it took anything in the shape of liquid food an attack of spasmodic cough came on. This cough also came on at other times and robbed the child of sleep. The child was wasting, and complained of pain

on the left side of the throat on a level with the thyroid cartilage. Nothing could be felt externally. From the persistence of the localized pain, and especially from the repeated attacks of spasmodic cough, I was fully convinced that the foreign body was in the air-passage, and, from its size, located in the laryngeal box.

On August 25, under chloroform (which she took very badly), laryngotracheotomy was done. There was scarcely any bleeding until the windpipe was opened, and then it became rather profuse for that organ. The "stone" was at once detected, the wound rapidly enlarged upward and downward, and the foreign



body extracted. A few moments afterwards the child stopped breathing. I immediately applied my lips to the wound, sucked out the blood, and breathed into the child's lungs three or four times. This had to be repeated before natural respiration was fully restored. On account of the oozing still going on, the wound was left open, although nearly all the air passed through the mouth. No chloroform was administered after the incision through the skin. With the exception of once, for a short time only, the breathing was good and full for about three-quarters of an hour.

While the child was coming from under the anæsthetic, it sprang up suddenly, called upon its mother, and fell back dead. Artificial respiration, continued for half an hour, was without avail.

On examining the wound after death, the cut in the windpipe was found to be three-quarters of an inch in length, involving the three upper rings of the trachea, the cricoid and the lower two-thirds of the thyroid cartilages. The mucous surface was injected, but no spot of ulceration was seen. The cause of death was supposed to be failure of the heart's action.

The points of greatest interest in this case are the length of time the "jack" remained in the laryngeal box without producing ulceration, and the late appearance of symptoms typical of foreign body in the air-tubes. The latter may have been due to the shape of the "stone."

TRANSLATIONS.

RHINOSCLEROMA OF MUCOUS MEMBRANES.

—Drs. O. Chiari and G. Riehl, of Vienna, have made a study of rhinoscleroma of the mucous surfaces, including thirteen personal observations and twenty-four collated from medical literature, upon which they base certain conclusions and observations as to the character of the disease. Like that of the skin, the affection of the mucous membrane is characterized by a hard infiltration, appearing without prodromata either diffuse or in the form of tubercles and plaques. Rhinoscleroma of the mucous membrane is a disease the progress of which is exceedingly slow, less slow, however, than that of the skin. The tubercles, which may attain the size of a hazel-nut, are either aggregated or isolated. They are as hard as ivory, and very frequently preserve their epithelium intact, but sometimes they present superficial erosions. The mass of the tubercle never softens, but it ends in resorption with the formation of a fibrous cicatrix, with irregular contraction (*ratatinement*) of the neighboring surface. This occurs both in rhinoscleroma diffuse and in plaques.

The posterior portion of the soft palate and the choanæ are most frequently the first parts affected, and from this as a centre it may be propagated in both directions. The affection of the mucous membrane precedes that of the skin in the majority of cases, as Kaposi has already observed. The nasal fossæ may be completely obstructed by the tubercles. The disease may appear independently in the larynx, where it attacks the vocal cords particularly, giving the appearance of chronic inflammation with hypertrophy.

The disease does not appear previous to puberty, and rarely after the fortieth year of age. The disease is not attended, as a rule, with suffering; and the attention of the patient is usually called to it by a feeling of obstruction in the nasal passages. Sometimes there is pain on swallowing food when the tubercles in the pharynx are large. The affection is not of itself fatal, but may induce death by suffocation or by intercurrent erysipelas. It may heal in places, but never disappears entirely. Removal of the growths is followed by rapid return. Tubage of the larynx may be required for the relief of

threatened suffocation. Interstitial injections of arsenic, etc., have been of no avail, and have been followed by local gangrene. The slow march of rhinoscleroma, the hardness of the tubercles, without surrounding inflammation, and the absence of softening, are sufficient to distinguish a case of scleroma from syphilis. The glandular involvement is marked in the latter disorder, in this it is slight; finally, specific treatment is useless in rhinoscleroma. The softness and deep ulceration attending lupus would prevent it from being confounded with the disease under consideration. In conclusion, the authors accept the view that rhinoscleroma is a neoplasm formed by embryonic tissue, and is essentially the same when occurring in the mucous membrane as in the skin.—*Zeitschrift für Heilkunde*, Band vi.; *Revue Mensuelle de Laryngologie, etc.*, No. 4, 1886.

THE DEVELOPMENT OF THE GRAY CORTICAL SUBSTANCE OF THE BRAIN.—At a recent meeting of the Académie de Science, M. Vignal presented a note on the development of the gray cortical substance of the cerebral convolutions. The elements of the cortical substance of the brain are, like those of the cord, solely derived from the ectoderm. At the commencement of gestation they resemble the embryonic gray substance of the cord. Since Kölliker's works, it is generally known that the primitive layer rapidly divides into two layers: one inner, an epithelial layer, limiting the fourth ventricle; the second layer forming the gray cortical substance of the brain. Between these two layers appears the white substance proceeding from the outer layer. As soon as the outer layer appears, the cells of the inner layer lose their epithelial character; they present a large nucleus surrounded by a granular protoplasm, from which proceed a number of prolongations lying close together. These non-differentiated cells begin to be differentiated towards the middle of the sixth month. The first nerve-cells that appear are those which form the lower portion of the third Meynert layer (the layer of the big pyramidal cortical corpuscles). In the course of the seventh month the nerve-cells of the fourth layer appear, in the eighth month those of the second and fifth layers. The first Meynert layer consists of fine nerve-tubes. (Exner.)

It appears at the sixth week, simultaneously with the white substance. At the ninth month the five Meynert layers can be easily recognized, although the greater proportion of cells differ considerably from those in adults. The neuroglia cells appear at the eighth month. In comparing the development of the gray cerebral substance with that of the gray substance of the cord, M. Vignal dwells on the fact that the cerebral development is not so early as that of the cord. The medullary cells begin to appear at the twelfth week of gestation, the cerebral at the twenty-eighth week.

NEW WARM STAGE FOR MICROSCOPIC WORK IN BACTERIOLOGY.—At a recent meeting of the Paris Biological Society, M. Vignal presented a self-regulating warm stage for use in microscopic work. It is small, easily used, certain in its results, and maintains an unvarying temperature. M. Vignal described this instrument as a modification of D'Arsonval's constant-temperature stove. It consists of a rectangular copper box, with double sides. The space limited by the inner wall constitutes the hot-air chamber. The right side of this chamber is removed in order to be able to place and handle the object-glass, on which is placed the preparation for study. On one side is the regulator, which is D'Arsonval's india-rubber diaphragm. On the upper part of the instrument there are two small tubes; through one of them water is introduced, and in the other a glass tube is fixed, along which the water rises and falls, determining the pressure which acts on the india-rubber diaphragm. A thermometer is passed through a small opening in front of the instrument, and is placed in the chamber containing the preparation. An opening from above downward is made in the stove, which allows the lens to reach the preparation, and also the light to penetrate. In order to prevent draughts, this aperture is closed at the lower extremity by a glass disk. A small sliding door can be brought almost into contact with the preparation in order to prevent loss of heat in the hot-air chamber. In front of the stove there is a cylindrical diverticulum, or side-process, similar to those of funnels for filtering hot fluids. A small gas-jet heats the side-process, and is protected by a small glass cylinder, which not only prevents the gas from being extinguished by draughts, but utilizes the

heat it produces. This instrument has been tested and submitted to different conditions. The temperature of the hot-air chamber has never varied more than one or two tenths of a degree, when the surrounding temperature was suddenly modified by opening a window close to the instrument, or by placing it near a source of heat: in a short time equilibrium was restored.

As this warm stage continues in working order indefinitely, without personal superintendence, it is specially adapted for the microscopic study of artificial cultivations of micro-organisms.

NEW FACTS CONCERNING M. PASTEUR'S TREATMENT.—There are one or two new facts concerning M. Pasteur's preventive treatment for hydrophobia which are worth noting. The rabbits inoculated are chloroformed during the operations of trepanation and inoculation, which are effected on aseptic principles as much as possible, the wound being only slightly moistened with carbolic acid; for if it were thoroughly washed out with this acid the virus would be destroyed. The bottles in which the cords are preserved are no longer closed at the lower tube by a tap, but by a piece of cotton wool. M. Pasteur now makes ten inoculations instead of thirteen, as he did in the case of Meister, the first patient treated; the inoculations are made every day: thus there is an interval of twenty-four hours between two consecutive inoculations. The first inoculation is made with a cord which has been kept fifteen days, the second with a fourteen days' cord, and so on. The last inoculation is made with a preparation of a cord only six days old. M. Pasteur inoculates his subjects from cords which have been preserved only five, four, three, two, or one day, in cases where the wounds resulting from the bites are especially dangerous, either on account of the region they occupy, their number, or the depth of tissue injured.

A NEW CINCHONA PREPARATION.—A conserve of cinchona (saccharolé de quinquina) was presented by M. Ferd. Vigier to the Société de Thérapeutique, as a tonic having especial advantages for administration to children. The preparations of cinchona having a pleasant taste, as shown by Blondeau, Waldman, De Vrij, and others,

usually contain only a small quantity of the alkaloids of the bark. In order to avoid this, M. Vigier selected a bark rich in alkaloids (*cinchona officinalis* et *succirubra* from Java), and exhausted it completely after the method of De Vrij. This extract, containing all the active principles of the bark, is evaporated, and finally mixed with sugar in such proportion that five grammes (or a teaspoonful) represent a gramme of the extract or five grammes of the powdered cinchona bark. From one to four teaspoonfuls may be given daily, either as a bon-bon, or in a little wine-and-water. A good wine of cinchona may be made by adding the saccharure in any desired proportion to wine. His experience had shown that the preparation possesses the same activity as the bark and forms an acceptable substitute for many of the official preparations.—*Bulletin et Mémoires, Société de Thérapeutique.*

STUDIES ON THE STRUCTURE OF BLOOD-VESSELS IN THE INVERTEBRATES.—In a note read at the Académie de Science by M. Vulpian, M. Vignal stated that he had studied the investing epithelium of the blood-vessels of two kinds of invertebrates, snails (*mollusca*) and crayfish (*crustacea*). It was well known that the investing epithelium of blood-vessels in vertebrate animals consists of contiguous polygonal cells, held together by a kind of cement. In the invertebrates the cells had dentated edges fitted into one another. These structural details are made evident by the action of nitrate of silver, demonstrating that the investing epithelium of vessels of invertebrates resembles that of lymphatics in vertebrates. M. Vignal concluded that, contrary to zoological teaching, what are commonly believed to be blood-vessels in invertebrates are really lymphatics, a belief further warranted by the fact that the vessels of the invertebrates open into the connective tissue.

CREMATION AND THE ROMAN CATHOLIC CHURCH.—By a decree of the Roman Inquisition, dated May 19, 1886, and confirmed by the Pope, Catholics are forbidden to join cremation societies, or to order their own bodies or the bodies of others to be cremated. His Holiness, in confirming the decree, condemns the "detestable abuse of cremating human bodies."

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 18, 1886.

EDITORIAL.

THE CLOSE OF THE VOLUME.

THE sixteenth volume of the *Philadelphia Medical Times* terminates with the present number. The index to the journal for the year just closed will show that the promise to maintain the high standard of previous volumes has been scrupulously kept, notwithstanding the very liberal reduction in the subscription-price to two dollars per annum, made by the publishers.

A larger number of Original Communications of permanent value have appeared in the pages of the *Times* during the past year than ever before; and in the numerous Clinical Lectures and Hospital Notes care has been exercised to give expression to the views of leading clinicians upon subjects of immediate and practical interest. The position taken in these columns with regard to the International Medical Congress—that its success is a question involving the honor of every regular physician in this country, and that those who still oppose it are recreant to their professional obligations—we are glad to see is now supported almost unanimously by the profession. Topics of present interest have been considered in the editorial columns, and leading articles have been furnished upon subjects involving special or exhaustive treatment. Abstracts have been freely made from current literature at home and abroad, and a mirror held up to observe the progress in several departments of medicine in reviews contributed by writers of acknowledged eminence in the specialty of which they treat. Reports of meetings of various medical societies have

promptly appeared, the various national organizations being specially reported for these pages. We would take the opportunity of expressing our thanks to our various correspondents for the interesting letters from London, Paris, and Berlin, as well as from the principal American cities, which have added much to the attractions of the *Times*. In the forthcoming volume all these features will be retained, and new ones added if found desirable. In conclusion, we desire to thank our subscribers for their support, and to say that if increased circulation and a subscription-list larger than ever before may be taken as an evidence of appreciation by the profession, the management of the *Times* has substantial and sufficient cause for congratulation and encouragement.

GASTRIC NEUROSES.

ROSENTHAL, in a recent work upon "Gastric Neuroses and Gastric Catarrh," sets forth in a systematic manner the results of his investigations in disorders of the stomach up to the present time. This accomplished observer has long advocated the view that neither the theory of local irritation and inflammation nor the recognition of derangements in the chemistry of digestion—the so-called chemical theory—affords adequate support to any system of diseases of the stomach thus far presented. In fact, the influence of these two theories is seen in the unsatisfactory state of our knowledge of gastric disorders and their treatment at the present time. During the last half-decade the attention of the profession has been increasingly attracted to the rôle of the nervous system in visceral pathology, and especially in affections of the stomach. Witness Clifford Allbutt's "Gulstonian Lectures on Visceral Neuroses" in England, and the publications of Rosenthal, Leyden and Leube, Stiller, Ewald, Oser, and others, in Germany.

The present need is closer application of clinical methods to the study of these diseases, more clearly defined characterization of the associated derangements of the nervous system, nicer diagnosis of the different forms, better methods of examination, and especially more systematic and practical application of the facts of the chemistry of digestion in diagnosis and treatment. Much that is fundamental is yet to be discovered. It is not yet known what nerves control the secretions of the stomach, the intestine, the pancreas, or the part played in the functions of those organs by the vagus, the sympathetic or the cardiac plexus; nor do we yet know precisely the course of motor impulses to the stomach or of sensory perceptions from it. How the stomach is influenced by conditions of the cerebral cortex is equally obscure, as are also the origin of the sensation of hunger and the nervous mechanism of vomiting. Nor do we satisfactorily understand through what organs or by what tracks reflex disturbances of the stomach are brought to pass. Nor are these deficiencies in our knowledge to be easily supplied by experimental research. In no branch of physiology is caution in the application of facts acquired by investigations upon animals more imperatively demanded than in studies of the vagus. Even in different animals the distribution of the branches of this nerve is most diverse, and, as Henle and Luschke pointed out, not even in man are the filaments of the vagus always arranged in the same manner in the main trunk, or in their central origin and peripheral distribution.

Pending more accurate physiological data, more exact clinical work is full of the promise of practical advancement. Especially is this the case in the field of therapeutics. It is necessary, however, to look beyond the dyspeptic symptoms,—yea, even beyond the stomach itself,—to the condition of the nervous system, and of the organism at large, in order to treat a very large group—we were about to say the

greater number—of gastric cases successfully. Certain it is that the day of the indiscriminate routine employment of pepsin, pancreatin, and the malt extracts is passing away.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

THE meeting of the British Medical Association at Brighton has been a great success: the attendance was large, the papers good, and the hospitalities unbounded. The distance was so short that many London men who would not have attended a more distant meeting ran down for a few days to the busy watering-place which is often called London-super-Mare, and a considerable number of foreign visitors were present, including M. Charcot, Dr. Brown-Séquard, Dr. Billings, Dr. Emmet, Dr. Lusk, and the delegates of the Executive Council of the next International Medical Congress. This deputation, which consisted of Dr. N. S. Davis, of Chicago (President-elect), Dr. Brodie, of Detroit (ex-President of the American Medical Association), Dr. Pancoast, Dr. Wile (Newtown, Connecticut), and Dr. Shoemaker, were introduced by the President to a crowded general meeting, and received a most enthusiastic welcome. Dr. Davis produced a great impression by his candid and elaborate statement of the difficulties and dissensions which had occurred, and the remarks made by Drs. Brodie and Pancoast were also listened to with great attention. At the close of these statements the meeting rose, and three cheers for the profession in America and for the delegates were given with great heartiness. I understand that the executive took every opportunity, by private hospitality, and by affording to the delegates opportunities for taking a prominent part in the proceedings, to do honor to the representatives of the profession in America, and to testify a cordial brotherly feeling for the American Medical Association. It appears very probable not only that Great Britain will send a large contingent to the Congress, but also that many leading men in every department will be present at Washington. The British Medical Association, which has in truth a very democratic constitution, has had to deal, in past time, with serious defections, led by prominent men who were not in sympathy with the policy pursued by the Association in certain matters, in the question of medical reform, for instance, and among those who were present at Brighton the immense majority, including especially the older members of the Associa-

tion, were strongly predisposed in favor of the American Medical Association and the Congress. No public statement was made by Dr. Billings, Dr. Emmet, or Dr. Lusk, who were present at the meeting when the delegates were introduced, so that the other side of the late dispute was not presented, and I am even told that Dr. Billings, who has made himself a great favorite here, expressed himself in conversation as desirous of taking part in the welcome which the American medical profession will doubtless offer to the British and European visitors next year.

The address delivered by the President of the Association, Dr. Withers Moore, most popular of Brightonians, was intended not only for the members, but also for the large public who in the columns of the *London Times* read next morning a long abstract of his remarks. Dealing with a subject of the day, "The Higher Education of Women," it has attracted a good deal of attention in the lay press, and, it may be added, a good deal of criticism. The main text of the address was that women were meant to be not men nor manlike, but mothers of men; that the overpressure which, especially with woman's eager nature, is too often a part of modern higher education, tends to indispose them for maternity, and that many of the best women are thus rendered absolutely and relatively infertile, to the detriment of the general development of the higher qualities of the human race. Dr. Moore fortified himself with quotations from Mr. Herbert Spencer, Dr. Mathews Duncan, Sir Benjamin Brodie, Dr. Ed. H. Clarke, Dr. Emmet, and Professor Loomis, and might also have found an ally in M. Renan, who, in a recent oration, traced his own genius to the silent lives of many generations of the Breton fisher-folk who were his ancestors.

A great deal of interest was felt in the address in Medicine; for the excellence of Dr. Billings's address before the International Medical Congress in 1881 was vividly recalled by all who had heard it. On the present occasion Dr. Billings dealt with the position of the profession in the United States, and the need for systematic international co-operation in studying the problems which disease presents. He expressed the opinion that the proportion of practising physicians in the United States was about one in seven hundred and fifty, and that a fair proportion was one in a thousand. This proportion, which is about that which exists in England, is double or treble what was regarded as fair a few years ago, when it was thought that one practitioner ought to be able to attend to the medical needs of between two and three thousand persons. Dr. Billings admitted, therefore, that one complaint made by the profession in the States, namely, that there are too many doctors, is well grounded, and did not dispute that the standard of some of the

eighty colleges was too low. "In America," he said, "we have over eighty gates, a number of turnstiles, and a good deal of the ground is unenclosed common." On the question of the regulation of the minimum standard of knowledge by central authority he was not very definite, but he gave some qualified praise both to the Alabama and the Illinois regulations, and expressed the opinion that the tendency was towards greater centralization. Nothing in his address appeared more strange to his English hearers than the statement that physicians' certificates of the cause of death are not required in the United States. In this country it is not too much to say that the death-certificate system is the chief link between the profession and the state, and the root of all our legal privileges. No person can be buried without a certificate of the cause of death, furnished by a medical man who has attended the deceased during life, or by the coroner. This is a great protection, especially to infant life, and has often been the means of bringing crime to light. The medical attendant, if his suspicions are aroused, has only to refuse a certificate to insure an inquiry by the coroner into the circumstances of the case, an inquiry which is, as a general rule, followed by an inquest. At the same time a great body of statistics is brought together. Dr. Billings praised the work in vital statistics done for the English government, and, indeed, appeared to think it the most valuable contribution which we as a nation make to medical science. But over and above all this, as he was not slow to see, the system is of great advantage to the state and the profession by affording one simple, easily-defined point of contact, as thus: no person can be buried without a death-certificate signed by a medical practitioner; only such certificates are in form as are signed by practitioners whose names appear on the Medical Register kept by the General Medical Council; the Council, appointed in part by the state, in part by the examining colleges and universities, and, in future, in part elected by the profession at large, decides what diplomas shall be sufficient to admit a name to the register. The authority exercised by the Council over the colleges granting diplomas, though circumscribed in various ways, is very considerable, and it will be seen that the basis of our system of state regulation of medical education is the demand by the state that the cause of death of every individual shall be stated by the medical attendant "to the best of his knowledge and belief," or ascertained by the coroner. This system is the terror of the quack and the prescribing chemist, and affords an effectual engine for checking the career of members of the profession who have been guilty of criminal or disreputable conduct involving the removal of their names from the register.

Among the other addresses one of the most original was that of Dr. Broadbent opening the Section of Medicine. It dealt with the remote effects of remedies, their undesired and undesirable effects when long continued, and the injurious effect on the general system which may be produced by treatment directed too exclusively to the relief of some particular symptom.

Dr. Lauder Brunton delivered an address in opening the Section of Pharmacology and Therapeutics, on the connection between chemical constitution and physiological action, which involved many profound chemical speculations, but so clearly stated and ingeniously illustrated that they became comparatively easy of comprehension.

The work in the Sections was in general carried on with great spirit. Sir Henry Thompson's paper on suprapubic lithotomy raised a most interesting debate, and a series of papers on the surgery of the liver, by Dr. George Harley, Dr. Imlach, and Dr. Lawson Tait, were well discussed. Dr. Brown-Séquard, one of the honorary members, spoke at length on Professor Victor Horsley's paper on the surgery of the central nervous system, and another honorary member, M. Charcot, took part in the debate on peripheral neuritis raised by Dr. Buzzard and Dr. Ross in the Medical Section.

In connection with the Section of Public Medicine, Mr. Crookshank, of King's College, made a very elaborate display of the methods of bacteriology. In one room sterilizers, incubators, baths, and other paraphernalia were arranged; in a second room cultivations of fifty different species of micro-organisms were exhibited; in another room mounted specimens could be seen under the microscope; and Mr. Crookshank's magnificent collection of micro-photographs received the admiration which they so well deserve.

The business part of the meeting passed off without any hitch, but some complaints were heard that the great mass of work to be got through within a very limited time did not allow sufficient opportunity for discussion.

The Association has been careful to make its honorary membership an honor worth having by limiting very strictly the number of distinguished men upon whom it is conferred. Every name on the roll belongs to a man of European celebrity, or to one who has rendered some special service to the Association. Four honorary members were elected at Brighton. All four belong to the western shore of the Atlantic, and they are the first American names which have been added to the list. Dr. Billings, Dr. Davis, of Chicago, Dr. J. A. Grant, of Ottawa, and Dr. W. H. Hingston, of Montreal, are the four eminent men who have been thus honored. The gold medal for distinguished merit was presented to Dr. Edward Waters, of Chester,

for his long-continued, self-denying, and able services in the cause of medical reform. The Stewart triennial prize for the best work in epidemiology was awarded to Dr. Robert Cory, who paid so dearly for his zeal in the cause of epidemiological research. The Middlemore prize for the best essay on the advance of ophthalmological science during the last three years was divided between Mr. Adams Frost and Mr. G. Berry. The Association has at length obtained premises more suited to its needs than the wretched little house it now occupies. The offices of the Briton Medical and General Insurance Company, which failed so disastrously to many members of the profession a short time ago, have been acquired by lease, and will afford, it is believed, ample space not only for the business of the Association, but for the printing of the Journal, and perhaps also for a reading-room for members.

After a good deal of discussion, it was decided at the second general meeting at Brighton that the Association should take no part in the selection of candidates for the General Medical Council. It is not possible at present to draw up anything approaching a full list of candidates. Dr. Glover has come forward at the request of an influential meeting, and, backed as he will doubtless be by all the interest of a powerful medical journal, his prospects of success are good. Hardly so much can be said of the chances of the other candidates who will probably seek election,—Dr. Benjamin Ward Richardson, Dr. Morris, of Spalding, and Dr. Bernard O'Connor. As there are three seats, and as other candidates are certain to be put forward,—indeed, a committee was formed at Brighton with this object,—a contested election will assuredly be held in England. In Ireland four candidates—Drs. Jacob and Kidd, of Dublin, Dr. McMordie, of Belfast, and Dr. Laffon, of Cashel—intend to stand for the one seat; but in Scotland no candidature has yet been formally announced. The services which these gentlemen desire to render are not unremunerated. A fee of five guineas a day is paid to each member while the Council is sitting. Travelling and hotel expenses are allowed on a liberal scale, and a fee of two guineas is paid for each attendance at a meeting of the Branch Council to which the member belongs. Altogether, the sum received by the Irish, Scotch, and provincial representatives is probably nearer two than one hundred pounds a year.

Dr. Balthasar Foster was knighted on Mr. Gladstone's retirement from office, and I notice that he evidently prefers to be known in the future as Sir B. Walter Foster. He combines two careers in his own person: he is physician to the General Hospital in Birmingham, and Chairman of the Executive Council of the British Medical Association, but he is also the ex-Gladstonian member of

Parliament for Chester, and Vice-Chairman of the National Liberal Federation. The daily newspapers assumed that the distinction was conferred on account of political services, and the mistake may well be pardoned as the chairman of the Federation, who had also been an unsuccessful candidate at the recent elections, was at the same time made a baronet: a mistake, however, was made, as Sir Walter Foster was careful to say that his knighthood was "in the main" due to the fact that he was President of the Council of the British Medical Association. Dr. William Stokes, the Dublin surgeon and the son of the more widely celebrated physician, has also been knighted.

A most remarkable outbreak of throat-disease, probably to be classed as diphtheria, occurred in Canterbury in July. The local symptoms were inflammation of the throat, with small white patches on the tonsils, and enlargement of the glands of the neck. The general symptoms were generally mild, and most of the patients recovered in two or three days without treatment; but in some cases they persisted for a fortnight, and the patient was left in a weak and prostrate state. No deaths occurred. The outbreak was very sudden, two hundred and thirty-one cases occurring in eight days, and limited to one district, within which all social ranks were attacked. The houses in this district to the number of four hundred and twenty-two were visited, and it was ascertained that cases had occurred in one hundred and twenty houses. An outbreak of throat-illness at Dover in 1884 was traced by Dr. Robinson, the Medical Officer of Health for East Kent, with great probability to the use of milk and cream contaminated with material from cases of aphthous fever in cattle. The source of the milk supplied to the houses in Canterbury was therefore very carefully gone into, with the result indicated in this table:

	Supplied Houses.	Cases.	Non- cases.
A milkman.....	160	94	66
This milkman and others.....	36	21	15
No milk.....	52	1	51
Condensed milk.....	8	0	8
Various milkmen.....	166	4	162
Total.....	422	120	302

It will be seen from the above that ninety-four houses out of the one hundred and twenty that had cases were supplied by one milkman, and that the disease also occurred in twenty-one houses supplied by the same milkman and others. Of the five cases unaccounted for, one drank tea habitually at one of the houses served by the first milkman. Two visited patients suffering from the affection, and one lived next door to houses in which cases had occurred; but in the fifth, a woman subject to sore throat, no connection with the milk or with infected persons could be traced. As the water-supply was known to be good,

and as the only circumstance which all the cases (with the above four exceptions) had in common was the milk-supply, Mr. Wachter, the Medical Officer of Health for Canterbury, thinks it "only reasonable to come to the conclusion that the milk was the prime cause of the epidemic." This conclusion is fortified by the fact that the dairyman, his family, and a pet lamb on his premises were suffering from sore throat, and that cases of sore throat had occurred among persons living in a different locality, but supplied from the same dairy. The cows were apparently healthy; but when it is remembered that they were examined after the epidemic had broken out, and how slight, moreover, was the affection of the udders found by Dr. Klein in the cows which are believed to be responsible for the epidemic of scarlet fever investigated recently by him in conjunction with Mr. W. H. Power and Dr. Cameron, of Hendon, much importance cannot be attached to the apparent health of the cows.

I hear that Dr. Lauder Brunton has been compelled, by increasing work in other directions, to resign the editorship of *The Practitioner*, and that he will be succeeded by Dr. J. Mitchell Bruce. Mr. George Lawson, surgeon to the Middlesex Hospital and to the Royal London Ophthalmic Hospital, has been appointed surgeon-oculist-in-ordinary to the queen.

The committee appointed to ascertain why the Houses of Parliament at Westminster have been pervaded by the odor of sewer-gas have discovered most terrible defects in the sanitary arrangements. Sewers and drains will need to be reconstructed, and water-closets and soil-pipes taken down and replaced by efficient apparatus. Possibly, if the House of Commons is able, when it reassembles next January or February, to deliberate in a pure atmosphere, it will accomplish some useful work. Were the heated talk and feverish impotence of the last few sessions in reality symptoms of sewer-gas intoxication?

DAWSON WILLIAMS.

LONDON, August 21, 1886.

BERLIN.

THE establishment of a chair of Hygiene in the University of Berlin, in connection with the Medical Department, marks a new era in medicine. Hitherto sanitation has been under the domain of chemistry, but the researches of Dr. Koch and others of his school have demonstrated that more than mere chemical analysis is needed in determining whether a given water- or food-supply is to be condemned as deleterious or not. The finding of organic matter in a water-supply by chemical analysis only furnishes proof of a *medium* upon which the germs of disease may multiply, but does not demon-

strate their presence. With our present knowledge, however, we not only determine the existence of organic matter, but may also definitely ascertain whether it is contaminated or not, and the import of the infection. To say that Dr. Koch is the father of the present school of hygiene is indeed little enough in his praise, for by his efforts the days of speculation are being supplanted and an exact science is rapidly coming to the front.

Some idea of the importance attached to this new school by the German government may be gathered from what it has done for the new chair. A large and commodious building has been set aside for its exclusive use, and Dr. Koch installed as Director of the Hygienische Institut, as it is called. The title of Geheimrath has been conferred upon him, and he has been elected to the "Legion of the Iron Cross." The latter honor has heretofore been reserved for the army and nobility, and, if I mistake not, Dr. Koch is the first private citizen upon whom it has been conferred. The Germans themselves cannot say too much in praise of him, and his quiet, scholarly bearing favorably impresses all who come in contact with him.

The laboratory was opened for students the 1st of July, 1885, and has now entered upon its second year. The building is much larger than is needed at the present time, but that the increasing interest felt in the new science will soon test its utmost capacity I have no doubt. It is solidly built of brick, in the form of two hollow squares, thus giving the greatest amount of window-frontage possible, and is also well adapted in other respects for the purpose for which it is designed. The first floor is devoted to offices and store-rooms. The second floor is occupied by the private laboratory of Dr. Koch, his lecture-rooms, two in number, the chemical laboratories, and the museum. The latter is, to a large extent, only projected, time being required to accumulate material and apparatus. The third floor is used for the culture and microscopical study of micro-organisms, and the rooms set aside for Dr. Koch's assistants. A portion of the fourth floor is fitted up for photo-micrographic work, and the remainder is devoted to the animals upon which experimental inoculations are performed.

The laboratory is so thoroughly supplied with the very best apparatus that it is a real pleasure to work in it. Of the thirty students, mostly M.D.'s, who are availing themselves of the advantages of the laboratory, the majority are Germans. In the next room to mine was a Japanese, who seemed to be doing good work; and it may be remarked here, parenthetically, that quite a number of Japanese are to be found in the universities of Germany. The class-instruction is given by the assistants of Dr. Koch, Drs. Petra, Esmark, and Fränkel, who each take turns,—one

teaching the class one month, another the next, and so on. They are thus enabled to get material ahead, and have time besides for original investigation.

Such students as are willing to devote an entire semester to the study of mycology are assigned some special topic by Dr. Koch, and receive daily instruction from him. Much good original work is being done under his direct supervision. The etiology of tetanus is at present engaging the attention of several students. The micro-organism found in this disease is an anaërobie,—that is, one which will not develop in the presence of oxygen. Many methods have been tried for its culture, but with only partial success. Recently, Dr. Esmark has invented a new process by which the culture will be considerably simplified, and at the same time it meets all the requirements in the case and promises to give better results. He inoculates tubes of gelatin in a manner similar to those for plate-cultures. The cotton wad is next trimmed closely, and an india-rubber cap fitted over the top to prevent ingress of water and air. The tube is then placed in ice-water and turned rapidly. The melted gelatin is thus cooled in a thin layer coating the inside of the tube. When a sufficient thickness is attained, the tube is inverted, and the remaining gelatin is allowed to run down upon the cotton wad and solidify. This method has been found to act very nicely for many micro-organisms of this class, the small amount of oxygen contained in the hollow of the tube not interfering with their development; but for those forms which require the entire absence of oxygen another plan must be adopted. Instead of a cotton wad, a rubber cork is used, through which two small glass tubes extend into the centre of the culture-tube and are also allowed to project sufficiently for the attachment of rubber tubing. These smaller tubes must be plugged with sterilized cotton. The corks may be previously placed in sublimate solution. After inoculation the gelatin is allowed to cool by turning the tube, as before described, in ice-water, care being taken not to close the ends of the smaller tubes with gelatin. These now project into the hollow space in the centre of the culture-tube. As many tubes as are to be included in the experiment are now connected by rubber tubing, and a continuous current of hydrogen or carbonic acid gas allowed to pass through them. The colonies will appear in the thin layer of gelatin coating the inside of the culture-tube, where they may be examined either with the microscope or with a hand magnifying lens.

Dr. Esmark has also had an instrument made for counting the number of colonies in a given quantity of gelatin contained in a tube, and so estimating the number found in the water or other fluid examined. It consists of a holder for the tube, fitted with suit-

able clamps. To this is attached a slide in which are cut squares of definite sizes, and above which is arranged a hand magnifying lens of sufficient strength to enable one to count the number of colonies and also examine their physical characteristics. The examination, on the spot, of a suspected water-supply is a matter of easy accomplishment by Dr. Esmark's method. One can take with him a number of sterilized tubes and make cultures, allowing the gelatin to harden on the inside, forming a thin coating, as described for the culture of anaërobie, but without inverting the tube. The inoculated tubes may be cooled by turning them in a running stream of hydrant-water, as well as in ice-water. By this means the liability of contamination is largely done away with, and colonies may be fished, with a little practice, from the inside of the tube with as much certainty as from off a plate-culture. These fished colonies may be introduced into fresh tubes, and pure culture prepared which can be taken home to be studied at leisure. The advantages of this method will be apparent at once to those who have done work in mycology.

Nothing new has been advanced during the past year regarding the tubercle-bacillus. No one has been able to demonstrate any spores in connection with it, and there exists considerable room for doubt regarding their presence, but all are united in attributing the direct cause of tuberculosis to the bacillus. The same confidence is expressed by those who have worked on the "comma-bacillus" regarding its direct connection with cholera. Its specific action, which at first they were not able to show, is now easily demonstrated. The process consists in first rendering the contents of the stomach alkaline, and injecting morphine under the skin in order to suspend the production of acid by the gastric glands, and then introducing the germs into the alimentary canal by the mouth. The cultivation of the comma-bacillus by students in the Hygienische Institut has been forbidden by the government.

Experiments are being made continually in the direction of preventive measures, both as regards therapy and hygiene. The latter field promises more than the former. As a rule, any drug that will destroy micro-organisms when once introduced into the system will have a deleterious action upon the tissues.

Bacteriological therapy, as practised by its adherents, has given little or no positive results; and Dr. Koch does not look forward with any degree of confidence to inoculation ever being available as a therapeutic agent or as a preventive measure, but holds that by reason of the advance in our knowledge regarding the etiology of disease we are able to establish better hygienic conditions and thus prevent the spread of disease. Already

much has been accomplished in bettering the sanitary conditions of corporations, and more will be done in a private way as the masses become convinced of the necessity for such measures. Sanitary science will become better understood, and a new school will come forward composed of medically-educated men.

The German government, with its Hygienic Institutes at Berlin and Göttingen, has taken the initiatory step. England is not far behind, although not generally considered so thorough as Germany. A society has been recently formed in London, composed, as set forth in its name, of medical men qualified in sanitary science. It numbers ninety-five members, who are furnished by the universities of the United Kingdom of Great Britain and Ireland in the following proportions: Cambridge University, sixty per cent.; Edinburgh University, twelve per cent.; Dublin University, seven per cent.; London University, five per cent., etc., the other universities following with a small percentage each. The society represents one-half the entire number qualified in sanitary science in Great Britain and her dependencies.

While the number is small, yet it shows that the universities of England are alive to the needs of the hour. In our own country the question has not been so fully discussed, yet several of our universities are awaking to the demands of the times. The School of Mines of Columbia College has had for several years a department of sanitary engineering. I had the pleasure of attending a course of lectures there in 1883, given by Professor Billings, U.S.A., on the etiology of zymotic diseases. Johns Hopkins University has a finely-equipped biological department, with Professor Welch at its head, where a student can work out almost any phase of the subject he desires. Yet, so far as I am acquainted, there are no institutions in our country that have hygienic departments that approach those of Germany. Germany is the natural home of hygiene, and it is evident to even the passer-by. Her streets are clean, and her water- and food-supplies are well looked after. The subject of public sanitation has long been a matter of solicitude, but it is only within a few years that sanitary science as applied to domestic life has been forced upon our notice. The State of Illinois has taken the lead in this matter, by requiring the addition of the chair of hygiene to the faculties of her medical colleges, and also requiring an examination in hygiene of the graduates of other schools who desire to practise within her borders.

Our universities and medical colleges will have to follow in the footsteps of other universities and establish chairs of hygiene and endow them sufficiently to make them independent.

Government, State, and city boards should be appointed to look after the sanitary condi-

tion of our water- and food-supply, as well as our drainage. Too little attention has been given to food-stuffs. Cases are upon record where the milk-supply has been the means of infection, and I firmly believe that if attention were directed to this source more instances would be recorded. In the past we have depended too much on our examinations of water-supply, while the food, and especially the milk-supply, has been almost or entirely overlooked. It is a well-known fact that milk furnishes a much better medium than does water, in which the small percentage of organic matter alone provides nourishment for the development of disease-germs. Too little attention has been given in America to food-supply as a source of infection. Laws should be passed requiring physicians to make all cases of infectious diseases—using the term in its broadest sense as now understood—a matter of record. This record should show the connection, if any, with food-supply; a careful examination should be made into the origin of the infection by competent boards composed of medically-educated men qualified in sanitary science. If the family in which the patient is found is in any way connected with the food-supply, then this board should have power to declare a quarantine not only against the family but against the food-supply furnished by them, especially if it consists of dairy-products, vegetable or fruits. These small dairymen and truck-gardeners are not able to employ nurses in case of sickness, hence the extra danger of infection. The family have double duty thrown upon them, and cannot observe even ordinary care. If they have a dairy, the dairy-utensils are liable to become infected, and the milk-route will be the means of extending the infection, be it cholera, cholera morbus, typhoid fever, or any kindred disease. I have no doubt that many a case of cholera infantum could be traced to such sources if the effort were made. The question naturally arises as to what may be done in an antiseptic way by private individuals regarding food-stuffs. The only sure means is found in thoroughly cooking whatever is to be eaten. Little or no raw fruit should be used. Small dealers should be avoided, especially the street-stands conducted by Italians, who are notoriously careless in their habits. If raw fruit is wanted, it should be purchased in crates or boxes that have been put up in the country, where fewer disease-germs exist than are found in cities. If milk is used as a beverage, it should be bottled in clean flasks at the dairy, and not be opened by the delivery-man. A very good way has been adopted here of sealing each flask at the dairy. The middle-man is thereby prevented from tampering with the contents, and a pure article is secured. I bespeak a large custom for any and all dairymen who adopt this German plan. If it is not possible to

secure the above conditions, then the milk should be boiled for several minutes. To many persons the thought of the possibility of food-contamination is repulsive; and on that account they are careless regarding the matter. The facts, nevertheless, stare us in the face, that the germs of disease are all around us: over thirty forms have been discovered that are pathogenic when brought into the system under favorable conditions for development.

The conditions are not always suitable, so that disease is not always insured when germs are present. Then, again, a large number are self-limited in character, producing certain changes in the media in which they grow that cause an arrest of further development. Those most to be feared, however, are the ones which are most liable to infect our food-supply and produce the long line of diseases of the alimentary canal, such as typhoid fever or cholera.

Let us, then, as a nation, as corporations, and as individuals, arouse from our apathetic condition and improve our hygienic surroundings, and thereby anticipate disease. By so doing we will add to the length of our days, and increase our ability to enjoy them. In the light of our present and ever-increasing knowledge regarding the etiology of disease, our therapeutics will take more of an antiseptic turn, and the "shot-gun" prescription will become a thing of the past.

W. XAVIER SUDDUTH, M.D.

August 16, 1886.

AIX-LES-BAINS (SAVOY), FRANCE.

August, 1886.

THIS year we send some vacation notes from this delightful health-resort. Dr. John M. Keating (*Philadelphia Medical Times* for July 10), in his interesting lesson on "Therapeutics of Natural Mineral Waters," finds that it is an attractive subject to study, and speaks of the foreign spas, with their thousands of visitors from all lands. He also truly says that the mineral water alone, like other medication, is of comparatively little value unless applied with proper method. Finding ourselves in what is perhaps the most systematic watering-place in the world, we feel inclined to return to our last year's remarks in regard to United States mineral-water stations, with the object of encouraging improvement in them by investigation and comparing them with the European methods. Dr. Hermann Weber, of London, in volume iv. of Von Ziemssen's "Hand-Book of General Therapeutics," gives considerable notice to the prominent mineral springs of France and Europe, and it would rather astonish many American physicians to see the large number of doctors and patients who flock to Dr. Weber's office to consult him as to the

choice of a mineral spring suited to their patients or complaints. The hope was expressed in a late number of the *Times* that Dr. Weber's late work would stimulate Americans to renewed exertions, particularly those who are engaged in the investigation of the resources of United States mineral springs. In view of the general scepticism in regard to the therapeutic value of many drugs, and the certain, proved efficacy of mineral waters, it certainly seems to be a subject that has been much neglected in American medical schools, none of the therapeutical professors giving it the attention it deserves. At the same time, the springs are notoriously badly conducted in a medical point of view. France alone has over five hundred of these mineral springs in use; and in a rough calculation there is no doubt that at least two hundred thousand people visit them every year. Aix-les-Bains and Vichy alone receive fifty thousand visitors. The percentage of cures is not given, but it may be stated as a fact that almost every one is greatly benefited in health. Change of life, etc., may be of great value in this, but the waters must also count for a large part in the improvement, for accumulated evidence is too strong to allow any serious doubts on this subject. Many French patients reside but a short distance from the springs, and are as readily cured as those who come from America: so that change, etc., cannot be invoked in these cases: the really efficient power of the waters themselves remains; so that throughout Europe in summer-time the railways are crowded with people, not on the way to some local Cape May or Atlantic City, but to some one of the mineral-water stations. Why should it not be so in America? Surely the springs exist. It is curious that practical people like the American doctors have not as yet derived all the benefit that can be obtained from this form of treatment. In the broad extent of our own country there certainly exist many rich mineral springs as good as any that are to be found in Europe; and now that many in the profession are getting sceptical in regard to chemists' mixtures, recourse should be had to nature's laboratory. The waters and stations exist; doctors are plenty; advertising capital in our enterprising land will not be lacking. It only remains, to our thinking, to adopt a scientific method of using the waters and reporting the results, just the same as we do when any other medicine is prescribed; but the general public will want some guarantee that it is worth while to go to such and such a place for treatment, and they will want to see that our best medical men visit and have representative brethren in these places. Our State governments, urged on by our highest medical authorities, should adopt some such system as that for instance in force in France: then, and then alone, will the masses take an interest in our mineral waters.

In France the *law* requires that a mineral spring shall not be worked or used medically or commercially without a *special authorisation* from the cabinet officer in charge of the state department of the government who superintends this matter, and he only grants this permission *after* a favorable opinion has been pronounced by the Academy of Medicine, which body is first of all informed by the land-owner when a mineral spring is discovered. They then appoint a committee of chemists to examine into the merits of the water. They direct an examination and analysis of the water, and afterwards report on the advisability of its use for medical purposes: they can also stop the working of a spring if it does not satisfy sanitary requirements. Official regulations fix the constitution and inspection of all mineral waters. A *medical inspector* is appointed to the locality, who exercises a constant surveillance over the springs, making reports to the department. He cannot, however, restrain the liberty of patients to follow the prescriptions of their own physicians, or others who may choose to practise at the springs. The medical inspectors are not allowed to have any pecuniary interest in any of the establishments over which they exercise a supervision. They are usually practising physicians of the place, and have a small salary as well. The price charged for the water and the baths, etc., is regulated by government laws, and a certain tax is paid by the owners of the springs to government. So European mineral-water establishments offer a double guarantee to the public: first, an *official analysis* which is *obligatory* before their use is authorized, and, next, the constant supervision of medical inspectors appointed by the state. Let the medical men of the United States join together and have their Congressmen file a bill to put our medical springs on such a basis, or let each State pass laws to control its springs, then it will be worth while for good medical men to pass the season at these stations, and the public will flock to them, for it is well established in Europe that *bottled mineral waters* do not preserve their value (notwithstanding Dr. Keating's opinion). One of the best hydrologists in France says, "It is certain that at most only the first glass of bottled mineral water retains any value; and, as one cannot drink all the bottle up at once, the rest may be thrown away." So it is here at Aix: the company advertises that the bottled waters export well and retain all their virtues, but they don't sell one hundred bottles a year in France, as no doctor will advise it.

But to return to Aix-les-Bains itself. It is one of the most important and popular health-resorts in Europe, as there is a happy combination of beautiful mountain-scenery, blue lake, with picturesque gorges and delightful climate, added to mineral springs possessing valuable properties. It is on the principal

line to Switzerland and Italy, nine and a half hours by express from Paris. The hot sulphur springs are two in number, rising from a great depth below the town, under the rocks of the tertiary period: their temperature varies from 114° to 117° Fahrenheit. Their chemical composition differs from the springs in the Pyrenees, as they have but little carbonic acid gas. One peculiarity about the waters is that they contain a nitrogenous substance termed *glairine* or *barégine*, which gives them an unctuous, oily feel, and, the doctors here believe, permits their absorption by the skin, particularly as the great system here is the douche combined with massage. External treatment seems to prevail, although many drink the water also, and use it in spray. The maladies mostly treated here are those depending on a rheumatic, gouty, or scrofulous diathesis. It would require too much space to dwell on the number of diseases that are benefited by these waters. Let us simply say that every advantage is taken of the *heat* of the waters, and the shampooing process performed by the celebrated *masseurs* here most materially adds to the action of the temperature and mineralization, forming a mighty trio, working most harmoniously for the common good. Many hundreds of our countrymen come here, and thousands of English: so that it is quite an Anglo-American place. Twenty-odd thousand patients are treated yearly, and double the number visit here. Some twenty-five doctors, among whom are the well-known names of Brachet, Cazalis, Monard, etc., practise here, and there are also two Englishmen settled in the place, Drs. Wakefield and Rendall. The thermal establishment is one of the largest (only Aix-la-Chapelle can compare with it) in the world. Over three thousand bathing-operations are performed daily. Space fails us to tell of the many and varied amusements provided at two theatres, where all the usual Casino attractions are to be found, including baccarat, while several bands of music are employed to enliven the spirits of the patients.

THOMAS LINN, M.D.

PROCEEDINGS OF SOCIETIES.

THE AMERICAN DERMATOLOGICAL ASSOCIATION.

(Continued from page 904.)

THIRD DAY, FRIDAY, AUGUST 27, 1886.

Morning Session.

DR. J. L. GRAHAM, of Toronto, Canada, exhibited some specimens from a case of anihum.

The first paper read was by Dr. S. SHERWELL, of Brooklyn, entitled

REMARKS UPON, AND QUERIES AS TO THE RELATIVE FREQUENCY OF, MOLES OF THE HEAD AND FACE, AND THEIR PATHOLOGICAL CHANGES.

The history and etiology of this class of affections are very slightly referred to in works on dermatology, but the author's experience had led him to pay especial attention to these formations. Upon looking up the statistics of one of the institutions with which he is connected, he found that in a period of eighteen months he had seen forty-seven cases suffering with neoplastic and hypertrophic growths. In thirty-six of the cases the growths occupied the face and head. In eleven cases only were the growths found on the body and limbs. Seventeen of the cases in which the growths were on the face were classed as epithelioma. It might be urged that the exposure of the unclothed portions of the body would lead to the formation of neoplasms and the occurrence of destructive activity in them. If that were so, why should not telangiectatic deformities, naevi, etc., undergo degeneration? The speaker had never seen malignant action or what simulated it in such growths. Mechanical irritation of the parts might be considered one reason for the frequency of these growths and their malignant tissue-alterations, but other parts of the body would seem more exposed to irritation than is the face. Moles and similar growths, though common on other parts of the body as well as on the face, yet in other situations seem less likely to undergo destructive pathological changes. The field electively most inimical to the presence of these growths, and of destructive activity in them when already present, may be bounded thus: a quadrangle just taking in the lower lip, the corners of the mouth, extending back to the ears on both sides, vertical lines extending upward to about an inch above the supra-orbital ridge, united by another horizontal line. Of the space thus included, the vicinity of the eyelids and bridge of the nose was, in the author's experience, the most frequent seat of their growth.

The most rational explanation for the frequency of these growths in the situations described is the nature and abundance of the circulatory nutrition, which must favor hyperplasia. If, however, we accept the above hypothesis, why should these errors of the capillary system—such as naevi—not oftener degenerate? He had often operated on these latter deformities, even causing much irritation, but had never seen more than a slight keloid change result. The speaker then referred to the special danger of malignant degeneration which attended the presence of moles in persons of advanced life.

In regard to treatment, he stated that he had operated on these growths in many ways, and had come to the conclusion that, when malignant action is either present or sus-

pected, the application of Volkman's curette, followed by the potential cautery, is the most efficient and easiest method of treatment. Of all escharotics, he preferred the liquor hydrargyri nitratis.

DISCUSSION.

Dr. I. E. ATKINSON, of Baltimore: The probable explanation of the frequency of the presence of moles, etc., upon the face as compared with other portions of the body is that when in this situation patients seek relief, while when covered with the clothing attention is not attracted to them. We should expect that sebaceous new growths would be more commonly seen upon the face, because there we have the greatest activity of the sebaceous apparatus.

Dr. JAMES C. WHITE, of Boston: I think with Dr. Atkinson that these new formations referred to are not more frequent on the face than on other portions of the body. That they undergo degeneration and form epitheliomatous new formations on the face more frequently than on other parts of the body I think cannot be doubted. In regard to the possibility of angiomatous new formations undergoing degenerative processes, I have never seen them undergo the so-called malignant change, but they do undergo degenerative processes tending to a spontaneous cure.

I formerly used the liquor hydrargyri nitratis to a large extent, but within recent years I have used the concentrated nitric acid, and seem to obtain about the same effect.

Dr. E. B. BRONSON, of New York: I think that in the cases of syphilitic growths the mercurial preparation is more active than the pure nitric acid, and tends to promote more rapid absorption.

Dr. L. N. DENSLOW, of St. Paul: With reference to the caustic, I may say that for the past year I have used a solution of one drachm of bichloride of mercury in one ounce of traumaticine. Its application is not painful at first, and does not excite inflammation for some time. It is particularly useful in the case of children.

Dr. R. W. TAYLOR, of New York: The author is to be congratulated upon the clear manner in which he has called attention to the danger of these various growths upon the face in a person over forty-five years of age. Such growths are very prone to assume malignant action. In the same connection, it may be remarked that any inflammatory mass about the prepuce, particularly if the result of anterior lesion, should in old persons always be ablated.

Dr. W. A. HARDAWAY, of St. Louis, then read

NOTES OF A CASE OF EXFOLIATIVE DERMATITIS (PITYRIASIS RUBRA?), WITH BULLOUS LESION.

February 21, 1886, the author was called to see Mrs. A., with an annoying disease of the

skin. The patient was 45 years of age, stout, and somewhat nervous; she had always been healthy; the present disease came on February 1, after a night of fatigue and exposure to the night-air; the following day a red patch appeared on the pit of the stomach; other patches developed soon, running together, leaving no healthy skin between; there was very little scaling at first, and no moisture; there was some degree of pruritus. When seen by the author, the chest, arms, back, and thighs presented the usual appearances of pityriasis rubra; there were neither moisture, crusts, nor appreciable infiltration; the skin was shining and of a violaceous hue. In the morning a handful of scales could be gathered from the sheet, but they were not as large as is usual, and were inclined to be furfuraceous; the face was not involved. Three or four days after the first visit, there appeared upon the thighs, abdomen, and buttocks a number of tense bullæ; their appearance was preceded by a distinct chill and followed by a moderate elevation of temperature; the blisters did not run into one another; the bullæ appeared in successive crops of not more than a dozen, each crop being preceded by a chill. Quinine was freely administered, and at the end of a week the bullæ ceased to appear. Dr. Hardaway was obliged to discontinue his visits at this period of the case, but the patient gradually improved.

The writer thought that this and other cases which he had seen showed that diseases usually supposed to run a dry course may, under certain circumstances, be complicated with lesions containing fluid.

Dr. G. H. TILDEN, of Boston, Massachusetts, presented

A CASE OF PROBABLE TUBERCULOSIS OF THE SKIN.

The patient, a healthy-looking boy 2 years of age, was first seen in July, 1885. The only lesions were six or eight cutaneous lesions scattered over various parts of the body: these were about the size of a split pea, slightly elevated above the level of the skin, of a bright red color, which disappeared entirely on pressure. These nodules were hard to the touch, with borders of sensible infiltration. These lesions had appeared within the previous five months, and had been very slow in growth. During the previous three months there had been failure in appetite and strength, and the child had an indisposition to walk. He was under observation for three months, during which time one or two fresh nodules appeared. In nearly all the older ones there ensued softening with formation of pus, which discharged and was followed by cicatrization. About two weeks after the first visit a fluctuating swelling of the size of a hen's egg made its appearance on the inner side of the left thigh over the knee-joint, but not communicating with it: this was opened and pus dis-

charged; it healed within a week. The general health became visibly affected. In November there appeared on the left buttock a swelling which gave an obscure sense of fluctuation; in the proximal phalanx of one finger there appeared a pyriform enlargement resembling that seen in dactylitis syphilitica. The child was again seen in February. The swelling in the buttock had increased in size, and there was more fluctuation in it; there was at this time sufficient outward curvature of the lumbar vertebræ to justify a diagnosis of Pott's disease. In his remarks with reference to the case the speaker said that in the outset the diagnosis of the nature of the cutaneous lesions had been impossible, but from the subsequent course of the disease he thought the most probable diagnosis to be tuberculosis of an unusual form. In arriving at a conclusion the following affections were considered: furunculosis, erythema nodosum, sarcoma, and syphilis.

Dr. LE GRAND N. DENSLOW, of St. Paul, made a supplementary report with reference to

THE TREATMENT OF ACNE BY THE USE OF SOUNDS.

At the last meeting he had reported five cases in which this plan of treatment had been of value. Four of these cases were adults, and all had remained well. The fifth case was that of a boy about 13 years of age, and in this case relapse had occurred.

Dr. S. SHERWELL, of Brooklyn: I have treated cases of acne with the use of sounds, and I believe that it does good. I employ this method as an adjunct to other treatment. I of course do not use it in all cases.

A communication with reference to the organization of a Congress of American Physicians and Surgeons was received, and the following Committee of Conference, to report at the next annual meeting of the Association, was appointed: Drs. H. G. Piffard, of New York, F. B. Greenough, of Boston, R. B. Morison, of Baltimore, G. H. Tilden, of Boston, and Le Grand N. Denslow, of St. Paul.

The following officers were elected:

President.—Dr. H. G. Piffard, of New York.

Vice-Presidents.—Dr. F. B. Greenough, of Boston; Dr. R. B. Morison, of Baltimore.

Secretary.—Dr. G. H. Tilden, of Boston.

Treasurer.—Dr. Le Grand N. Denslow, of St. Paul.

The Association then adjourned, to meet at the call of the Council.

NEW YORK STATE MEDICAL SOCIETY—THIRD DISTRICT BRANCH.

A MEETING of the Society was held at Binghamton, New York. Dr. CALEB GREEN read a paper entitled "Notes on Some Forgotten or Much-Neglected Remedies and Therapeutic Measures" (see page 917).

DISCUSSION ON BLEEDING IN THE TREATMENT OF PNEUMONIA.

Dr. VAN DER WARKER, of Syracuse: I want to protest against some of the ideas quoted from Dr. Hartshorne. I do not believe for a moment in the lessening of the resisting powers of the human race. I think, on the contrary, that the whole history of present medicine shows that the resisting powers of the human family are increasing in the same ratio as its longevity is increasing; its improved hygiene, improved modes of life and intellectual life, the wider sphere of their moral and physical usefulness, have conduced to increase the resisting powers of the human race. We are making successful surgical operations to-day that would have appalled the profession fifty years ago, from which they would not have believed a human being could recover. The statement that the race is deteriorating is utterly disproved by the fact to which I have just alluded, and yet that idea is used to explain why antiphlogistics are not used to the same extent that they were in former times. We now appreciate better the extent to which venesection is available: just as in the use of mercury, if it appears to be less used to-day than thirty years ago, it is not because we have less regard for its value as a remedy, but because we know its limitations, and within its limitations it is used more than it ever was before.

Dr. ORTON: I should like to be allowed to introduce the same test which I introduced into the old State Society about a quarter of a century ago, and make the same request which was granted at that time. I asked two questions, and I should like to ask the same questions to-day in reference to this matter of venesection. "Those members of the profession present who can remember any case in which they employed venesection and which caused them to regret that treatment will please rise." (None rose.) "Now those members who can remember a case in which they regret not having used the lancet will please rise." (About two-thirds rose; the young members not voting.)

Dr. FERGUSON: In twenty-five years there has grown up a large number of physicians who never have bled, and consequently they could not have regretted using an instrument which they never used. I think every member of the Third District Branch appreciates the scholarly attainments of the author of this paper, and the training he brings to bear upon any subject he takes hold of; but in regard to bleeding in connection with pneumonia I think we must bear in mind the fact that pneumonia in the healthy adult, occurring in rural districts, at least in my observation, is a disease tending intrinsically to recovery, except in the broken-down, the inebriate, and the very old. I do not recollect now that I have ever seen a fatal case of pneumonia in my practice. I know the nat-

ural tendency is to recovery, and whatever views we may take of the pathology of pneumonia,—whether we lean on the side that it is a disease depending on a specific cause (and certainly I think the majority of us now will take this view), or whether we regard it as an inflammation,—the patient has a certain battle to go through with. If bleeding can be shown to limit the duration of the disease, or elide from it any special risk, then it is a measure to be resorted to. There is no question of its power to relieve the pain; but the hypodermic injection of morphine will do the same. I have bled in pneumonia, and I have not been in the practice of medicine quite twenty-five years. I have seen it relieve the pleurisy, but I have seen an injection of morphine do the same. Whatever will contribute to the patient's comfort will probably contribute to his ability to cope with the disease.

Dr. C. W. BROWN: I was very much interested in Dr. Green's paper. I can say that I have tried bleeding in pneumonia in the early stage when I believe it benefited my patient. I have seen other cases where I think I have regretted bleeding in pneumonia. But as regards cases of apoplexy I have bled quite a number where I believe I have saved their lives by bleeding. I am morally certain that they would have died if they had not been bled,—and that in the face of the fact that the first five cases I bled all died; but others since that time I believe have had their lives saved by bleeding. On account of the prejudice against it, many times it happens that cases which should be bled are not bled by the attending physician, when his judgment really teaches him that that is the thing to do.

Dr. F. W. ROSS: I can hardly let this discussion pass without saying something in regard to the matter of bleeding. So far as I am concerned, I know that when I entered into practice I never had seen a patient bled. I remember the first time I bled a patient, and I was gratified at the result. About three weeks ago a case occurred in which there was a question of bleeding. It was one of those terrible conditions we sometimes meet of puerperal eclampsia, and, being without a lancet, I took a bistoury and opened a vein in the arm. The convulsions ceased, and, although the woman was insane for a week or ten days afterwards, she ultimately recovered; and I believe there was nothing that saved the woman aside from the full bleeding. If she had used chloroform or morphine without the bleeding she certainly would have died.

I think, as a general rule, that practitioners are afraid of the public in regard to the use of the lancet. I know the first time I bled I was timorous for a week for fear the patient would die; but the patient recovered.

I had a conversation with a doctor who had a case that required bleeding. I have no

doubt that the doctor neglected his duty for fear of public sentiment; I think it is a wrong idea; and the younger members are more afraid than the older members. I never saw a case of a plethoric woman with pneumonia where I did not regret not having bled; and in this case of eclampsia the words came back to me of Dr. Ramsbotham: the condition and aspect of the patient seemed to cry out to you, "The lancet! the lancet! nothing but the lancet!"

Dr. JEWETT: I believe when we bleed for the purpose of avoiding pneumonia we do not bleed as they bled formerly: we bleed inefficiently; we do not bleed enough; we bleed fearing that we shall over-bleed them. I believe that the failure in bleeding is more often from timid bleeding than from the bleeding itself.

Dr. BIRDSALL: I see pneumonia as it occurs in the rural districts. I do not bleed patients, and I never had reason to regret it.

Dr. LESTER: The first four years of my practice were in hospital- and in field-practice in the army; I never bled a man. We had pneumonia in Louisiana. I was instructed in the College of Physicians and Surgeons not to bleed very much; that was in 1860; and then the general sentiment was not to bleed; I never bled a man, except once, all the time I was in the service. Afterwards I came to Northern New York, and those bark-peelers and choppers would have pneumonia that was entirely different from any pneumonia I had ever seen; their blood-vessels were full, and they would die, too; I gave them such things as I did in the army. Dr. Reynolds, of Saratoga, said, "Bleed them." I would be called in the night and find a man suffering intensely, and I would bleed him; and they did a great deal better. I practised there awhile, and then went to Seneca Falls, where I now practise. I have never bled a man or woman in Seneca Falls; I have never seen an occasion to; they are a different class of people, who work in-doors and in shops and in offices, and I can get along without bleeding that class of people; but those men that were full of blood, eating salt pork, and peeling bark, etc., they needed bleeding. I would be governed by the circumstances of the case.

Dr. WHITNEY: I wish to say that in a majority of cases of pneumonia, as far as have come under my observation, a blister laid over the lungs in the early stages of the disease has been far more potent to stop the disease than bleeding. The cases where I would bleed are very few and far between.

Dr. DITTEMER: I think the doctrine to-day is getting to be that pneumonia is an essential fever, and essential fevers do not bear bleeding very well. If it is an essential fever without a local expression, we do not need to bleed, any more than we do in bilious fever or typhoid fever. It is because it does

have a local expression,—because a certain portion of the breathing apparatus is crippled so that it cannot do its duty. If we bleed in a case of pneumonia it is because a considerable portion—often two lobes and sometimes the third lobe on the other side—is affected, and the circulation in the lungs is greatly obstructed, and the circulation of the blood, which must go on, therefore must go through the lung which is not affected. We bleed not to cut short the disease: we cannot cut it short with blisters, bleeding, or anything of that kind; we do not bleed for the affected side at all: we bleed to save the other one from being affected, because all the blood goes through the unaffected lung which went through both, and it is overwhelmed. Sometimes it occurs in plethoric people, who ought to be bled in any event, whether they have pneumonia or not; we bleed in those cases because if we do not diminish the amount of blood the patient has to succumb. I do not bleed as much as I ought to in those cases; I was one of those who could have arisen and said that there had been cases where I did not bleed when I was satisfied that I ought to have bled. I have seen large, plethoric men who were saved by bleeding simply because the quantity of blood was diminished in the system, and the quantity they had left could be circulated properly by means of a heart weakened by fever. I believe with Dr. Green and with the gentleman from Seneca Falls (Dr. Lester) that we should treat not the *name* of the disease, but the *condition* which is there. Most cases of pneumonia have lung-surface enough, or there is only a small portion of the lung affected, so that we need not bleed. From the fifth to the seventh day it comes to its crisis, and most of the cases recover without any perturbing measures. But when we have a case that requires it we should not hesitate to bleed, whatever may be the fashion or the opinion of our neighbors. I do not think that we should govern our practice because the community says we shall use or shall not use it. I act according to the best of my judgment, and, whether the result be favorable or not, I do not consider myself answerable to the *vox populi* as to whether my treatment or pathology be successful or not.

Dr. GREEN: In the first place, I did not fully endorse the doctrine of Dr. Hartshorne, that the vital force of men was lower at this time than in the former age. Bloodletting was a favorite doctrine twenty-five to thirty years ago, since when bloodletting began to be less frequently resorted to in practice. The question as to whether pneumonia is a special essential fever with local manifestation, is not a settled question: so, in my opinion, we must tread on that ground rather lightly. I might have referred to the use of the lancet in a great many other instances, as in the puerperal cases they have referred to. I

should also have referred to the question of bleeding in cerebral diseases, and even where cerebral hemorrhage has taken place, where one side is paralyzed: some say there is no use in bleeding, because the mischief has already been done. To be sure, we cannot stop the extravasation which has already taken place; but we can limit the amount of blood that will be poured out. And it will not be limited if we do not stop that bounding pulse. Three or four years ago an old man, eighty-seven or eighty-eight years of age, was found early in the morning in a comatose condition, and when they got him into the sitting-room on the lounge or wheeled-chair it was observed that he was paralyzed in one side. I found him several hours afterwards. (He lived five miles out in the country.) His face was flushed, his whole head was flushed, his pulse was full and bounding hard. What should I do? Here he was. The question was whether he would live or not; but I would give him the chance by bloodletting. I put in the lancet and bled him liberally, and his senses began to return, his face began to assume a more intelligent appearance, and the old man recovered, not from his paralysis, but it saved the man from instant death. In an hour or two he would have been dead from the effusion of more blood from this condition of the circulation at the time. I should modify the views of Dr. Hartshorne if I were editing the work. Here was a most marked result: all the indications for bleeding, and yet complete paralysis of one side.

I have not had time to go into the methods of bleeding here, or the results of bleeding. I do not always bleed in pneumonia. In a good many instances I find that it is not necessary. I find but few cases where blisters are not of some service. As I indicated to you, in answering the question of Dr. Orton, I regret many times I had not taken advantage of bleeding to arrest the violence of the inflammation. And although in a certain proportion of cases it terminates by crisis, yet in many cases it will go on, and especially if a large portion of the lung is involved is the case likely to prove a protracted one. If in any case we diminish the amount of effused material and limit the exudative area, we will shorten the term of the pneumonia. Of course, in speaking of the efficacy of the lancet it is understood that it is to be used with discrimination in all cases. But I wrote this paper partly to indicate to our younger members that a valuable agent for relieving and limiting the extent of pneumonia was had in bloodletting.

Dr. LYMAN: Some ten years ago Dr. Flint read a paper in Albany on pneumonia, and that was the first I had ever heard of its being a specific fever. Before that we had different kinds of pneumonia,—typhoid or bilious pneumonia and acute pneumonia,—which required

different treatment. Those that did bleed can remember cases where they did not dare to bleed; if they did, the cases were sure to die, and pretty apt to die anyway. But in ordinary acute pneumonia it was rare for a person to die. And many times we bled three or four times during an attack. But the disease now, I think, is more of a typhoid nature. I believe there is a difference in the disease generally.

Dr. GREEN: As an instance of its former prevalence, and of the indiscriminate way in which bloodletting was done, a lady some years ago told me of an old physician in Waterford, in this State, where she formerly resided, who bled for everything. He even bled for toothache. When they sent for him, they always got the bowl and bandage ready on the table; they knew he would call for them. As in former times, the decanter of whiskey and the glass and the sugar, etc., were also on hand.

Dr. FARRINGTON: There was just one thing that was said in protesting against the views of Dr. Hartshorne on the endurance of the race, from which my observation and experience certainly differ very much. It would be very gratifying to me to believe that cases of longevity are increasing in the world; but my observation is that it is a mortifying fact that it is not so. And we may take it in our own individual observation, that the children of the parents, take any generation which has been under your observation, rarely attain the age of their parents, and every successive race has less power of endurance than the former. The children have less power to resist disease. The average of life may be lengthened, but extreme longevity and the power of endurance are lessening in my observation, and the American race is deteriorating physically.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

A STATED meeting was held May 5, 1886, the President, Dr. S. WEIR MITCHELL, in the chair.

Dr. ARTHUR V. MEIGS read a paper on

CONSTIPATION,

in which he directed attention to fecal impaction, and to the local and systemic disorder to which it may give rise, and reported cases showing that obstinate diarrhoea may be caused by the irritation of a mass of feces in the rectum.

DISCUSSION.

Dr. J. M. DA COSTA said: A point of particular interest is the occurrence of fever in these cases. I saw the fourth case with Dr. Meigs, and the fact that it simulated typhoid fever so closely is a matter of interest. I have seen a similar case in which there were almost identical symptoms, with an almost

identical termination. We see from this case and the others referred to that constipation may cause fever which is continued and may present the symptoms of a low type.

There is another point connected with the occurrence of constipation in fever to which Dr. Meigs did not have occasion to allude,—that is to say, sometimes after low fevers, in which the state of constipation to which Dr. Meigs has called attention occurs, relapse of the fever will be developed by the constipation. We grope around in darkness, wondering what may be the cause, thinking that it is a true typhoid-fever relapse, when by giving small doses of oil or of laxatives both the fever will disappear and the bowels be freely moved. I have seen this state of things keep up for five or six days; and I think that a good many cases of relapse in typhoid fever have their origin in the very condition to which Dr. Meigs has alluded, and to which I now call the attention of the College.

I will go further: I have reason to think that in some of these cases there may be well-developed typhoid-fever symptoms with rash, due to constipation, which will disappear when the bowels are moved. I have seen the same thing after remittent fever. It seems to me that the occurrence of constipation after fever, typhoid or malarial, may lead to the redevelopment of the febrile state, which may be considered a relapse, when in reality it is only the same kind of irritation of the bowels which in Case IV. of Dr. Meigs produced a fever of low type when there was not the slightest reason for suspecting typhoid fever.

Dr. JAMES H. HUTCHINSON: Case IV. was probably not a case of simple constipation, but one of enteritis associated with the constipation. The enteritis was probably the cause of the fever, and not the constipation. In regard to constipation causing relapse in typhoid fever, I think that it is well known that the cases in which constipation has occurred are more apt to have relapse. I have not myself seen a great deal of constipation follow typhoid fever. At present I cannot recall a case of relapse in which it could be attributed to constipation.

Dr. JOSEPH LEIDY made the following remarks on

PARASITES AND SCORPIONS.

I have recently received for examination, from Dr. W. T. Belfield, of Chicago, three little nematoid worms, which, as stated in the letter accompanying the specimens, were referred to him by Dr. R. W. Gelbach, of Mendota, Illinois, who found them in the intestine of young anæmic, but otherwise healthy, cats. Both gentlemen believe them to be specimens of *Ancylostomum duodenale*, and my examination has confirmed this opinion. On superficial inspection I supposed the worms might belong to *Strongylus tubaeformis*,

a closely-related parasite infesting the cat. The specimens, however, exhibit the same structure of the mouth as is described in the *A. duodenale* of man. Beneath the upper lip are four strong recurved hooks, and within the lower lip a pair of hooks. The finding of this parasite in the cat in this country renders it probable that it may also infest man with us, and is probably one of the previously unrecognized causes of pernicious anæmia. The occurrence of the same parasite in the cat is also of interest, as heretofore it has only been noticed in man.

I take the opportunity to exhibit several excellent photographs of trichina in the flesh of the pig and in that of a young woman, sent to me by Mr. Eugene A. Rau, of Bethlehem, Pennsylvania. The photographs were accompanied by a letter giving an account of four cases of trichinosis which recently occurred in a family in that town. The pig used was raised at home, and was stated at no time to have exhibited signs of being unwell. Two other hogs, raised on the same place, were examined and found not to be infested. Of the four persons infected, the mother, aged thirty-seven, and a daughter, aged thirteen, died, while the father and a younger daughter were recovering. The photograph of the pork-section exhibits many coiled worms encysted; those from the deltoid muscle of the girl exhibit numerous coiled and a few extended worms, lying loose among the muscular fibres.

Prof. Leidy also read a letter from Dr. V. Gonzalez, of Durango, Mexico, reporting the great prevalence of scorpions in that district, and the frequent fatality of their sting, especially among children, who die in a short time in convulsions. Dr. Gonzalez observes that a bounty is paid for the scorpions, and that some years over one hundred thousand are destroyed, but that they still continue to be abundant.

DISCUSSION.

Dr. W. T. FORBES said: With reference to the second statement with regard to trichinosis, I would ask Dr. Leidy if the description which he gave of the trichina being found in pork, which is contained in the communication which he read before the Academy of Natural Sciences some forty years ago, was not the first description of the parasite being found in an article of diet? I ask this question because it has been repeatedly stated in Berlin that the trichina had been found there prior to that time.

Dr. LEIDY: I believe that mine was the first notice of the parasite occurring in the pig. It had been previously discovered in man. I was led to find it in the pig after having seen it in man. Dr. Goddard noticed it in a subject in the dissecting-room, in this city, several years before I observed it in the pig. The parasite was at first considered to be of no

importance. Some years later, in an epidemic of trichinosis in Germany, the parasite was discovered in many of the persons affected, and in the meat that had been eaten. I think that it was Leuckart who made some experiments and referred to my notice of the trichina in the hog. The parasite was first discovered in man by Sir James Paget.

The President, Dr. S. WEIR MITCHELL: Is there anything known of the steps by which this worm referred to in the first communication finds entrance into the system of man, and of the way in which it is supposed to give rise to anæmia?

Dr. LEIDY: It is supposed that the anchylostomum gains entrance to man through the drinking-water, and, if that is the case, the cats probably obtain it in the same way. If cats, in this country, obtain it from drinking-water, it is probable that with us man may do so. It is curious that it should be found in the cat. Generally we find that similar parasitic worms are found only in animals closely related to one another. So far as we know, the *Ascaris vermicularis* occurs in no other animal than races of men. The cat has its own *ascaris*, and this is found in various species of cats all over the world. There is another found in the dog, which is also found in the wolf. Again, the ordinary tapeworm of the dog is found in all sorts of dogs. I have a specimen from the wolf in the West, and I have another which Dr. Kane obtained from an Esquimaux dog in the North. As I have said, worms of the same species in the same stage usually infest only animals which are closely related.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, THURSDAY, SEPTEMBER 2, 1886.

The President, B. F. BAER, M.D., in the chair.

INTUBATION OF THE LARYNX.

Dr. E. E. MONTGOMERY exhibited a set of Dr. O'Dwyer's tubes, the gag, and the instruments for the insertion and removal of the tubes. He related the history of a case of laryngeal diphtheria in which they were successfully used to relieve asphyxia. In consequence of an over-dose of stimulant the tube was coughed out, and had to be replaced, as the child could not breathe without it. The doctor contrasted the difficulties of tracheotomy with the comparative ease of introduction of the tubes, and called attention to the want of success attending the former operation, as parents will not give an early consent for its performance. He had performed eleven tracheotomies before he had a single successful case, and, as

his first intubation case has been a success, he feels strongly in favor of the new operation.

Dr. M. PRICE presented a case of

REMOVAL OF THE OVARIES FOR UTERINE FIBROID.

The case is one of interstitial uterine fibroid, the uterus being about the size of one at the third month of pregnancy, irregular in outline and nodular, and pelvis-bound. The ovaries were displaced backward and incarcerated between the uterus and the sacrum, making it difficult to remove them. The woman had been suffering for four years, and a confirmed invalid during the last one, unable to do any work. Her marital relations had been suspended for over a year, owing to the sickening pain attending any attempt at sexual intercourse. She had to walk with great care, and lie on her stomach while resting or sleeping to prevent a throbbing and sickening pain in the pelvis. A rather exceptional and interesting feature of the case was the absence of profuse and irregular bleeding; her menses were irregular, scant, and pale; her chief suffering was from engorgement of and pressure upon the ovaries. All kinds of treatment had been persevered in for the last three years, and the patient grew worse. She demanded operative procedure for her relief, preferring the risk of death to her suffering. The ovaries were removed July 9, 1886; they were hypertrophied; they were found low down behind the uterus, and contained numerous pus-pockets; the tubes were enlarged, but did not contain pus. With the exception of a suture-abscess, she did perfectly well and made a complete recovery. She is now able to look after her domestic affairs, and is free from pelvic pain and soreness.

No examination of the condition of the uterus has been made since the operation.

REVIEWS AND BOOK NOTICES.

THE PHYSICIAN HIMSELF, AND WHAT HE SHOULD ADD TO HIS SCIENTIFIC ACQUIREMENTS IN ORDER TO INSURE SUCCESS. By D. W. CATHELL, M.D. Fifth Edition. Baltimore, 1885. Pp. 284.

This edition is a decided improvement over the earlier ones, which we have already favorably noticed.

MANUAL OF DIFFERENTIAL MEDICAL DIAGNOSIS. By CONDUCT W. CUTTER, M.D. New York, G. P. Putnam's Sons, 1886. 12mo, pp. 161.

The comparative semeiology of diseases of certain regions is considered in such a way in this work as to present the diagnosis between allied diseases in the clearest light, and greatly to facilitate reference.

VOL. XV.—26**

NEW REMEDIES AND CLINICAL NOTES.

THE CARDIAC COMPLICATION OF BRIGHT'S DISEASE.—At the meeting of the Ohio State Medical Society, held at Cleveland, Dr. J. T. Whittaker read a paper in which the mutual dependence of heart and kidneys was illustrated by cases of Bright's disease.

The essayist commenced by comparing the relation of the heart and kidneys in the human system to that of a force- or feeding-pump and the escape- or waste-water-pipe. Disease of one was, therefore, likely to be followed sooner or later by disease of the other. In this relation the disease might begin first in the heart and be followed by acute or chronic nephritis; secondly, in both heart and kidneys simultaneously, under the operation of the same cause, as in alcoholism, syphilis, gout, in the form of arterio-capillary sclerosis, etc.; and, lastly, in the kidneys, to be followed by pericarditis, much more rarely by endocarditis, but always by hypertrophy of the left ventricle. This hypertrophy, which we now know to be compensatory,—hence to be favored and sustained in every way,—accompanies every case of chronic nephritis except a few cases of extreme debility, where new tissue cannot be supplied. It is not limited to renal cirrhosis, but is found equally in chronic parenchymatous nephritis: in fact, there is no chronic nephritis without it. It is a valuable sign, in that it shows itself early,—in the course of from two to four weeks after the inception of the disease in the kidneys, at which time it may be detected clinically as well as demonstrated upon autopsy.

The various causes assigned for its production were next discussed, and the symptoms—increased tension of the pulse, dislocation of the apex to the left, increased dulness, and accentuation of the aortic tone—were dwelt upon. These symptoms are all the more valuable in that they may all exist in a marked degree in the entire absence of subjective signs on the part of the heart: in the absence of a valve-lesion to account for them they should excite the suspicion of the practitioner at once as to the existence of Bright's disease. So long as this compensation is exact, there is no dropsy, and, as a rule, no uræmia; but so soon as it becomes disturbed with an excess or failure, gross symptoms supervene. Failure is eventually inevitable. It shows itself in the pulse, which becomes weak and quick; next in the lungs, with signs of dyspnoea, bronchitis, asthma, and œdema; lastly in the general system, with anasarca and hydrops of the serous sacs.

The paper concluded with directions for the treatment of dilated heart, and urged the importance of determining the stage of Bright's disease by the condition of the heart.

A CASE OF SUDDEN DEATH FROM A BLOW ON THE TESTICLES.—At a recent meeting of the Varna Medical Society, Dr. Ivanoff recorded the following rare case (Bulgarian *Meditsinsko Spisanie*, June 20, 1886, p. 440). A man, aged between 45 and 50, fought with a woman on the street. During the fight the woman dealt a violent blow on his genital organs. The man shouted, "I am dying!" staggered, and fell insensible. The author, who was almost immediately fetched to the spot by a policeman, found the patient lying on his back, motionless, pulseless, and breathless; his face, neck, and scrotum being very red. Not a trace of ecchymosis or any other sign of injury was detected anywhere in the man. Since there seemed to be heard a slight cardiac murmur and a slight tremor to be felt in the carotids, Dr. Ivanoff without any delay resorted to artificial respiration. But neither forty-five minutes' manipulations nor electrization could re-establish the man's breathing. The congested parts soon became livid and every sign of life extinct. At the post-mortem examination there were found only intense congestion of the meninges and brain, congestion of the lungs with numerous punctiform ecchymoses, accumulation of dark-red fluid blood in the cardiac cavities, congestion of the stomach, liver, kidneys, and testicles. Everything else was quite normal. Basing his conclusion on all the facts as sketched above, the author stated (forensically) that death followed from syncope which had been brought about by sudden violent pain caused by a blow on the testicles.—*London Medical Record*.

A REMARKABLE ACCIDENT WHILE TAPPING A HYDROCELE.—In the *Lancet*, July, 1886, p. 23, a remarkable accident is recorded. M. Loumeau tapped a hydrocele in a healthy man aged 44, and drew off about one hundred and twenty-five grammes of clear fluid. The operator then injected gently sixty grammes of a mixture of tincture of iodine with twice its volume of water. All at once the patient complained of severe pain in the spermatic cord and loins, with cramp in the right forearm. The ulnar border of the right hand then became flexed, the ring and small fingers being completely bent, while the index and middle fingers became flexed at their metacarpo-phalangeal articulations. The thumb also was flexed and brought near the fingers. Exactly the same position was shortly afterwards assumed by the left hand. There were no convulsions nor syncope. After a few minutes the ulnar muscles began to relax, and the index and middle fingers became flexed completely on the hand, which itself became strongly flexed on the forearm. All the muscles on the front of the forearm became hard and contracted. The palmar fascia was strongly retracted, and the palmaris brevis quite tense. On both sides the ulnar

affection had given place to contraction of the muscles supplied by the median nerve. The tongue hung loosely in the mouth, and the patient was unable to articulate a sound. The forearms were shampooed, and nearly an hour afterwards the muscles relaxed. The patient recovered completely, leaving the hospital cured in a few days. The author had no idea of the cause of this attack, but attributed it to reflex irritation of the nerves of the serous membrane of the testicle.—*London Medical Record*.

THE INFLUENCE OF NITRITE OF AMYL ON THE URINE.—The statements of Drs. Mya (*vide* the *London Medical Record*, April, 1885, p. 155), A. Macdonald (*ib.*, p. 284), and Giuseppe and Santoni (see the *British Medical Journal*, April 11, 1885) have induced Dr. P. A. Walter (*Pract.*, No. 12, 1886) to undertake a course of very careful experiments on five healthy men, aged from twenty to twenty-eight, in Professor V. A. Manassein's clinic. Each experiment lasted four days. For the first two days the subject did not receive any drug; during the next two he inhaled three or four drops of nitrite of amyl four times daily. In two of the men uric acid was determined after Salkowski's method; in the remaining three after three methods simultaneously, — to wit, Salkowski's, Heintz's, and Ludwig's. Urea was determined after Borodin's method, and the whole amount of nitrogen after Kjeldahl-Borodin's method, as modified by Kürloff and Korkünoff. The acidity of the urine was tested by means of caustic soda. The results obtained by Dr. Walter are at variance with those of his predecessors. They are as follows: 1. In healthy subjects the inhalation of nitrite of amyl in the dose stated does not in the least influence the daily amount of urea, uric acid, and nitrogen excreted in the urine. 2. The same may be stated as regards the daily quantity of the urine, as well as the acidity of the latter. It is worth while to mention that the analytical tables adduced by the author unmistakably prove that Heintz's method of determination of uric acid does not give any reliable result, while the figures furnished by Salkowski's method tally closely with those of Ludwig's.

PIGMENTATION OF THE CONJUNCTIVA IN ADDISON'S DISEASE.—Armin Huber, assistant in the Zurich clinic, records a case of Addison's disease in which the conjunctiva was the seat of pigmentation. The pigment was deposited in one minute patch on the scleral conjunctiva of the right eye, above the corneo-scleral junction, and on each side in numerous spots along the lower margin of the cornea. The patient was 49 years old, and presented well-marked bronzing of the skin, besides suffering from the gastric symptoms so frequently met with in Addison's disease.

The writer remarks that he is aware of only one other observation of the conjunctiva being pigmented in this disease,—namely, in a case described in Gerhardt's clinic. (*Deutsche Med. Woch.*, xxxviii., 1885.)—*Practitioner.*

MISCELLANY.

HYDRONAPHTHOL.—Dr. Justus Wolff asserts that E. Mercks's statement that betanaphthol and hydronaphthol are identical is a mistake, which may result in the most serious consequences if betanaphthol be used instead of hydronaphthol, "as the first one is a most dangerous and deadly poison, while the latter is an excellent, absolutely reliable, and harmless antiseptic." The poisonous character of betanaphthol has been established a long time ago by such authorities as Kaposi, Neisser, and Piffard, and lately by Max Schwarz, while Dr. G. R. Fowler, Dr. Laurence Wolff, and many others have proved hydronaphthol to be non-poisonous and a most effective antiseptic. Hydronaphthol is distinguished from betanaphthol not only by its physiological action, but also by distinct chemical reactions and by its chemical constitution, as it possesses certainly more hydrogen in the molecule than betanaphthol. Of the several distinguishing chemical reactions the following may be given as an example. If from a diluted iron-perchloride solution two drops are added to an alcoholic betanaphthol solution it becomes of a bright-green color, while the same proportion of an alcoholic hydronaphthol solution of the same strength becomes dark yellowish brown by addition of the same proportion of iron-perchloride solution. Other reactions are also different, and the melting-points—obtained by most careful determinations—are for hydronaphthol 117° C. and for betanaphthol 122° C. These and other facts satisfy the author that hydronaphthol is distinct from the poisonous compound which is known as betanaphthol, and that it is not alphanaphthol nor a mixture of the two last named, and does not contain any of either.*—*Druggists Circular* for September.

IT HAS PROVED ITS RIGHT TO BE.—The *Pittsburg Times* of July 30 says, "The service rendered by the State Board of Health to the people of West Elizabeth in their affliction by the outbreak of fever is an illustration close to home of the usefulness of that organization.

"In such cases people are likely to lose their heads, and to need above everything directions as to what they should do. They call meetings and discuss the perils, but disperse as undecided as when they assembled.

* The hydronaphthol manufactured by Seabury & Johnson is claimed to be perfectly harmless and free from toxic or irritating qualities.

The local doctors are usually busy with the sick, and have little time to give counsel as to sanitary arrangements. Besides that, they are pretty sure to differ as to the origin and nature of the pestilence, and as to the best means of suppressing it. The State Board, stepping in with a system of rules concerning the closing of wells and preparation of hospital accommodations, is welcomed as a succorer, and its instructions are the means of restoring confidence and leading to intelligent treatment of the danger.

"The Board has hardly reached the end of the first year of its existence; but what it has done, as at Elizabeth and at places still nearer Pittsburg, in abolishing nuisances perilous to health is sufficient argument for its right to be, and to be amply supported."

THE WHIPPING-POST DEMORALIZING IN ITS EFFECTS ON THE COMMUNITY.—The whipping-post is at work in Delaware, and the Medical Jurisprudence Society of Philadelphia has been discussing the propriety of adopting it in Pennsylvania. The general sentiment, however, was opposed to it. Quite recently twelve convicts at New Castle, Delaware, were punished with the lash. The infliction of the punishment was public, and was the cause of considerable merriment to the spectators. Is it not difficult to believe that the moral effect upon a community is bad, if such spectacles as the whipping of convicts are allowed to be witnessed by the public.

THE DISTRICT NURSE SOCIETY.—We gladly make the following announcement:

A District Nurse Society has been formed for the care of the sick poor in the Third District (Fifth, Seventh, and Eighth Wards) who cannot be sent to the hospital. A trained nurse is provided by the Society to visit those who are ill and give them such care as is needed. The office is at 1030 Race Street.

The Society will also furnish bed-linen and other comforts for the sick. For these services a charge of five cents a day is made, except in cases of extreme poverty. The members of the medical profession are requested to send notice to the Society of those who require a nurse's aid, and with this notice there should be directions for the nurse in case any special treatment is required.

THE SMITH & SHAW ELECTRIC COMPANY manufacture a closed-cell pocket battery which is efficient for most purposes to which a faradic current is applied. It is compact, cleanly, and convenient, as it can easily be carried in the pocket.

DR. CHARLES S. TURNBULL has been appointed Attending-Surgeon to the Clinic for Diseases of the Eye and Ear at the Mathilda Loeb Dispensary of the Jewish Hospital.

NOTES AND QUERIES.

CORROSIVE-SUBLIMATE DRESSINGS AT THE PENNSYLVANIA HOSPITAL.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR,—That the great cause of sepsis and its agents may in no way suffer thereby, kindly allow me a word in explanation of the statement in your last issue to the effect that two resident-surgeons of this hospital were upon sick-leave, the result of mercurial poison.

Neither Dr. Penrose nor myself was upon sick-leave: we were simply taking short vacations; although the former had had, previous to his departure, symptoms of pyralism,—due to working in perhaps needlessly strong solutions of the sublimate. Bichloride of mercury (usually in conjunction with iodoform) is the universal antiseptic of this hospital, and is applied to almost every case where dressing is required, and is also freely used during operations. Internes are almost continually in contact with the agent during their entire term of sixteen months, when in the medical service, assisting at operations, etc.; while during their eight months' surgical service I think that I may safely aver that their hands are *never free from it*. Yet, excepting the slight symptoms in Dr. Penrose's case, there has been no ill effect experienced among us from its use. Save one, the same can be said of our nurses, who, *the year round*, are exposed to it fully as much as ourselves. That one, however, being decidedly sensitive to its influence, has left our employ. *No patient has ever, to my knowledge, been salivated or otherwise affected for the worse through its surgical use in this institution.*

As the onset of poisoning by its gradual absorption is marked by unmistakable prodromes, there can no danger attend such contact of the surgeon with it, much less its use upon the patient. Its surgical use internally (washing out abscesses, joints, other cavities, etc.) is, however, a very different matter, for here the utmost prudence and judgment are required; but I am happy to say that, even in this, bad effects have yet to happen with us.

Since Dr. Penrose's return to duty and the use of the standard house solution of the bichloride, he has had no renewal of the annoying symptoms.

I am, sir,

Very truly yours,

THOMAS S. K. MORTON, M.D.

TROUSSEAU'S DIURETIC WINE.

In response to a correspondent, the following formula is given:

R Vini albi, 750 grammes;
 Scillæ, 5 grammes;
 Juniperi, 50 grammes;
 Digitalis, 10 grammes.

Macerate for four days, then add

Potassii acetatis, 15 grammes;

and filter.—(Trousseau's Clinical Medicine, American edition, vol. i. p. 705.)

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM AUGUST 29, 1886, TO SEPTEMBER 8, 1886.

MAJOR P. MIDDLETON, SURGEON.—Assigned to duty at St. Francis Barracks, St. Augustine, Florida, as post-surgeon. S. O. 126, Division of the Atlantic, September 2, 1886.

CAPTAIN L. W. CRAMPTON, ASSISTANT-SURGEON.—Relieved from further duty at Bellevue Rifle-Range, and granted leave of absence for one month, to take effect before rejoining his proper station (Fort Bridger, Wyoming). S. O. 108, Department of the Platte, August 28, 1886.

CAPTAIN L. A. LA GARDE, ASSISTANT-SURGEON.—Upon departure of 3d Infantry from Fort Ellis, Montana Territory, to proceed to Camp Sheridan, Mammoth Hot Springs, Wyoming Territory, and report to the commanding officer for duty, relieving Assistant-Surgeon Pilcher. S. O. 87, Department of Dakota, August 27, 1886.

FIRST-LIEUTENANT WILLIAM J. WAKEMAN, ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for three months' extension, to take effect when his services can be spared in the De-

partment of the Platte. S. O. 207, A. G. O., September 6, 1886.

FIRST-LIEUTENANT JAMES E. PILCHER, ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon La Garde from duty at Camp Sheridan, to return to his proper station (Fort Custer, Montana Territory). S. O. 87, Department of Dakota, August 27, 1886.

FIRST-LIEUTENANT PHIL. G. WALES, ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for an extension to November 5, 1886. S. O. 70, Division of the Pacific, August 31, 1886.

FIRST-LIEUTENANT L. WOOD, ASSISTANT-SURGEON (recently appointed).—Ordered to report by letter to the commanding general, Department of Arizona, for assignment to duty. S. O. 202, A. G. O., August 31, 1886.

FIRST-LIEUTENANT WILLIAM B. BANISTER, ASSISTANT-SURGEON (recently appointed).—To report by letter to the commanding general, Department of Arizona, for assignment to duty. S. O. 202, A. G. O., September 7, 1886.

FIRST-LIEUTENANT CHARLES F. MASON, ASSISTANT-SURGEON.—Relieved from duty in Department of the East, and assigned to duty in Department of Arizona. S. O. 203, A. G. O., September 1, 1886.

FIRST-LIEUTENANT F. V. WALKER, ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Adams, Rhode Island. S. O. 131, Division of the Atlantic, September 8, 1886.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U.S. NAVY FROM SEPTEMBER 1, 1886, TO SEPTEMBER 12, 1886.

PASSED ASSISTANT-SURGEON S. H. DICKSON.—Detached from the Naval Academy October 1, 1886, and ordered to Navy-Yard, Washington.

PASSED ASSISTANT-SURGEON J. G. LIPPINCOTT.—Ordered to Naval Academy October 1.

MEDICAL-DIRECTOR E. SHIFFEN.—Detached from Naval Hospital, Philadelphia, and ordered to attend officers of the Navy and Marine Corps at Philadelphia not otherwise provided with medical aid.

MEDICAL-DIRECTOR WILLIAM T. HORD.—Detached from Examining and Retiring Boards at Washington, October 5, and ordered to Naval Hospital, Philadelphia, Pa.

MEDICAL-DIRECTOR R. C. DEAN.—Ordered to duty as member of Examining and Retiring Boards at Washington, October 5, 1886.

SURGEON J. F. BRANSFORD.—Detached from U.S.S. "Iroquois," and ordered to Naval Hospital, New York.

PASSED ASSISTANT-SURGEON C. H. H. HALL.—Detached from Naval Hospital, New York, and ordered to Naval Hospital, Yokohama, per steamer of 21st instant.

ASSISTANT-SURGEON C. E. WOODRUFF.—Ordered to Receiving-Ship "Vermont," October 4, 1886.

ASSISTANT-SURGEON L. W. ATLEE.—Detached from the "Vermont," and ordered to the "Quinnebaug," per steamer of 25th instant.

MEDICAL-INSPECTOR E. S. BOGERT, SURGEON N. MCP. FEREBEE, PASSED ASSISTANT-SURGEON C. BIDDLE, ASSISTANT-SURGEON H. B. SCOTT.—Detached from the "Trenton," and placed on waiting orders.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U.S. MARINE HOSPITAL SERVICE FOR THE THREE WEEKS ENDED SEPTEMBER 4, 1886.

BAILHACHE, P. H., SURGEON.—To proceed to Cape Charles Quarantine as Inspector, August 27, 1886.

FESSENDEN, C. S. D., SURGEON.—Granted leave of absence for thirty days, August 30, 1886.

GODFREY, JOHN, SURGEON.—To proceed to Biloxi, Mississippi, and investigate alleged yellow-fever cases, September 1, 1886.

IRWIN, FAIRFAX, PASSED ASSISTANT-SURGEON.—Granted leave of absence for thirty days, September 2, 1886.

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